

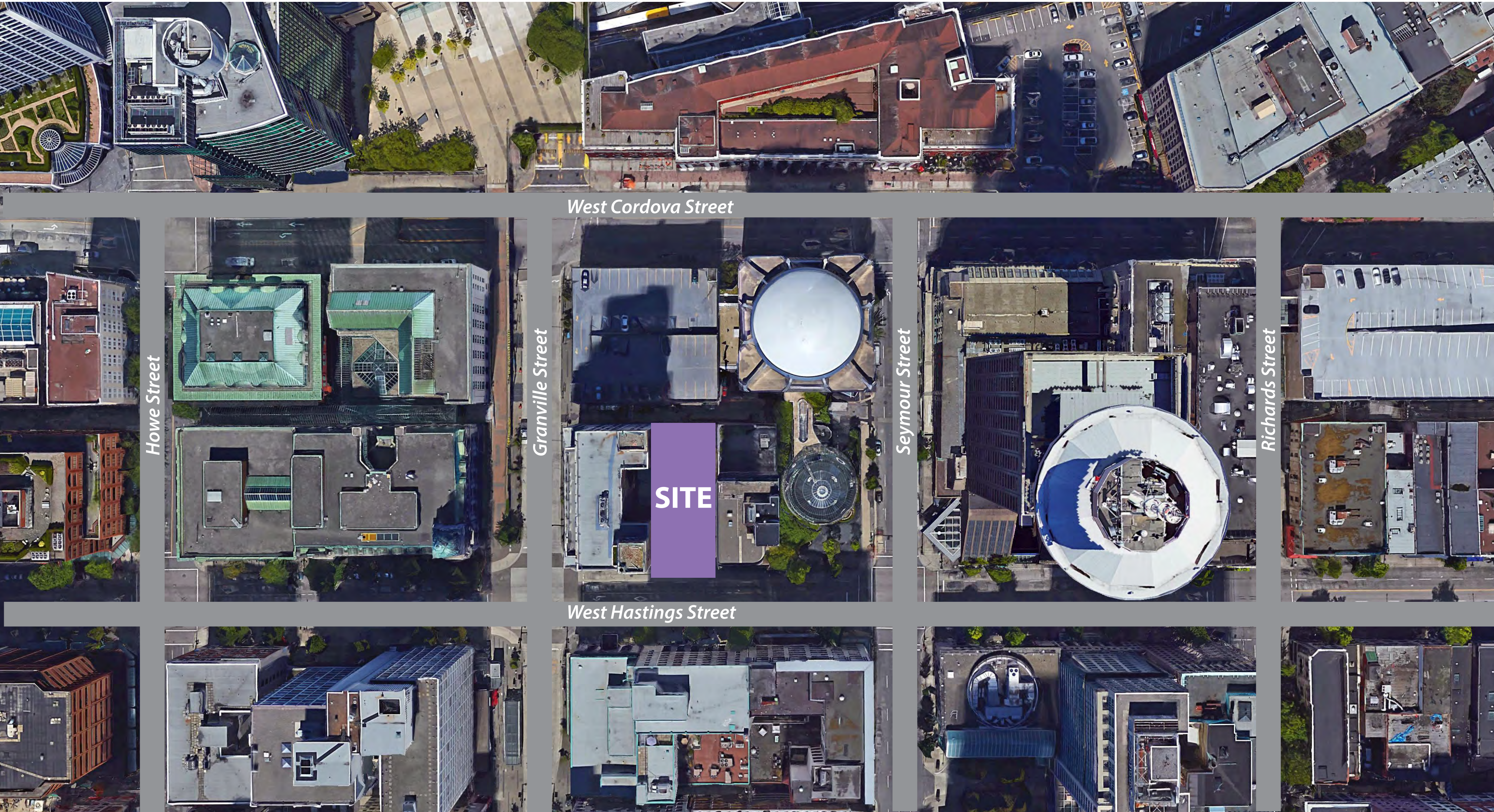
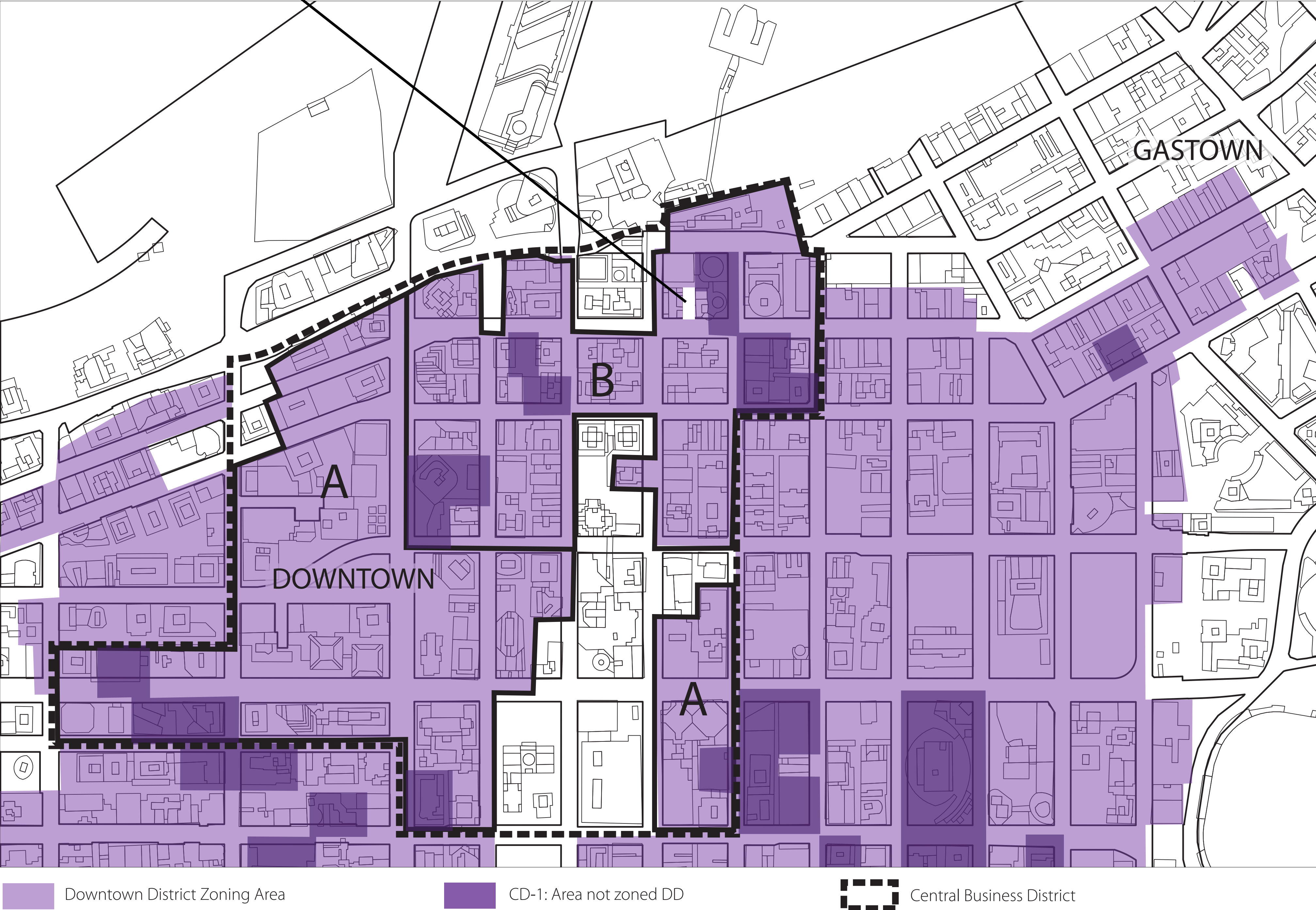
CONTEXT - SITE

The site, approximately 6,240 sf (580 m2) in area, is currently zoned DD (CBD) with density 9 FSR and a height limit of 300 ft (91.4m) and possible increased maximum height to 450 ft (137.2m)

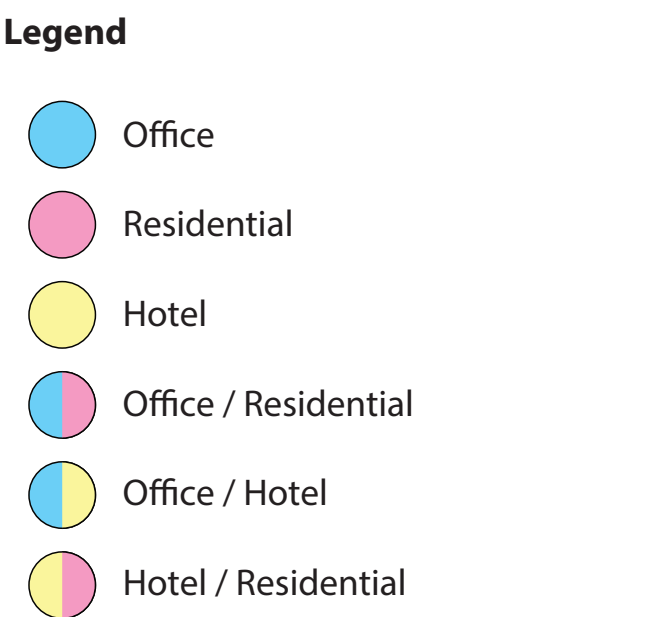
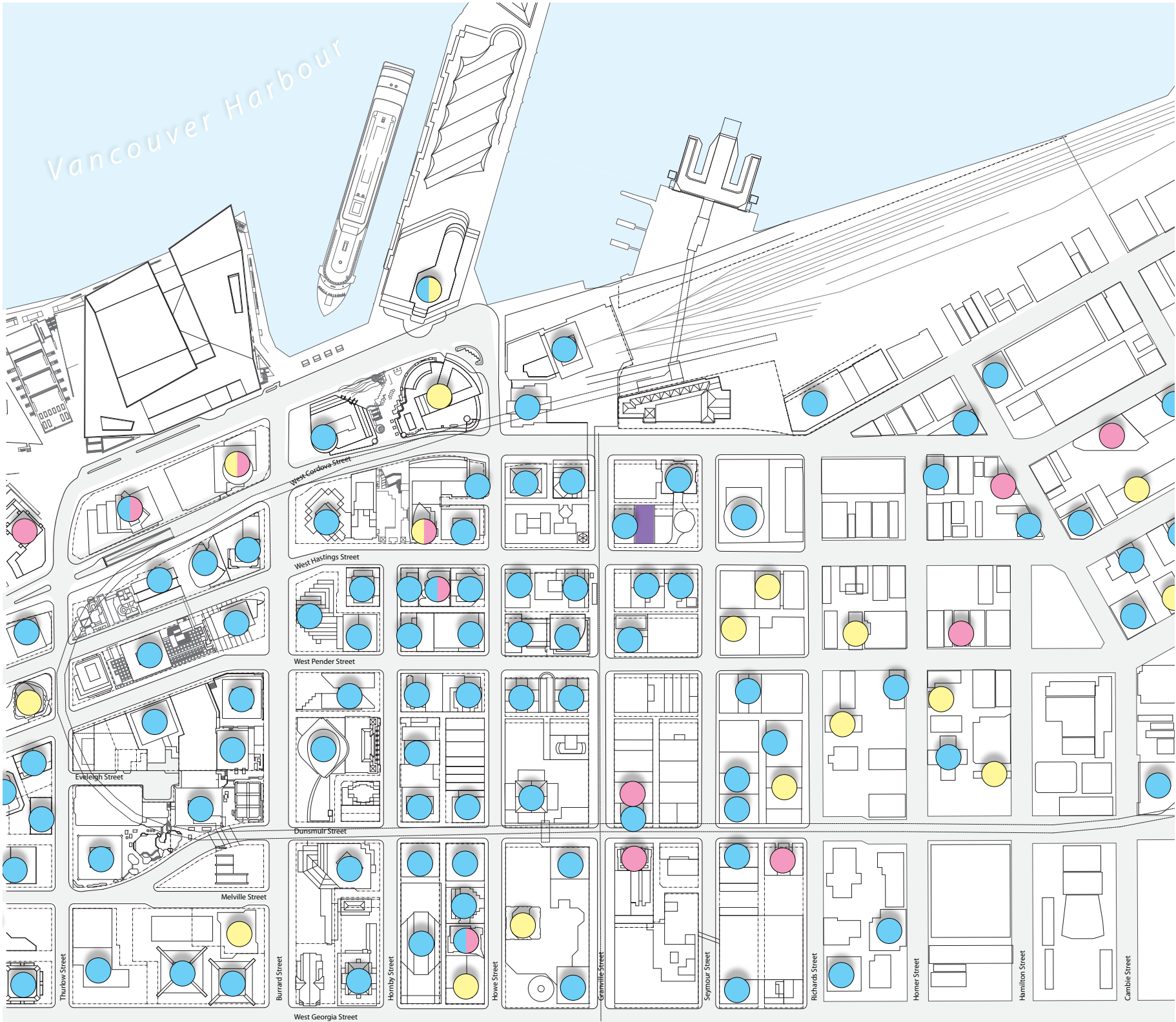
The application to rezone 625 West Hastings Street from DD (CBD) to CD1 zoning proposes:

- an increase in permitted density from 9 to 25.5 FSR
- a change in height from allowed basic maximum of 300ft (91.4m) to approximately overall height of 353 ft (108 m)

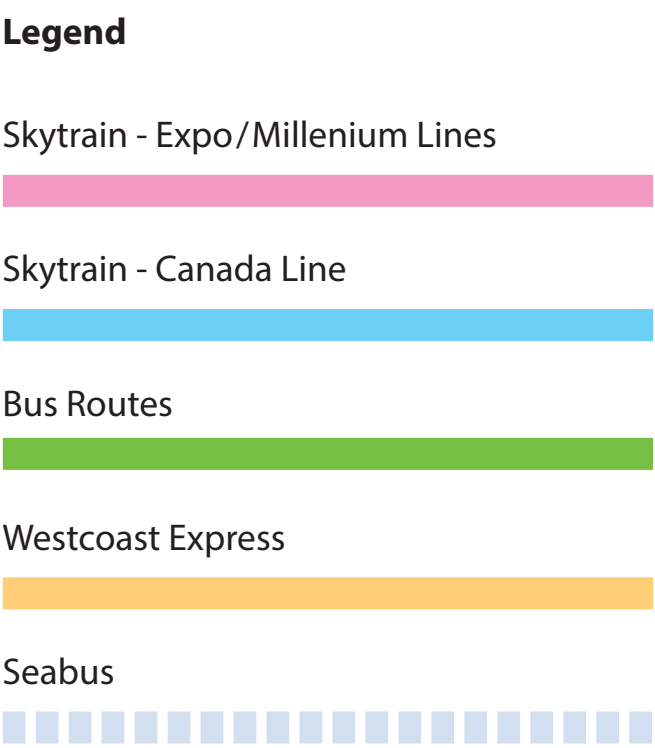
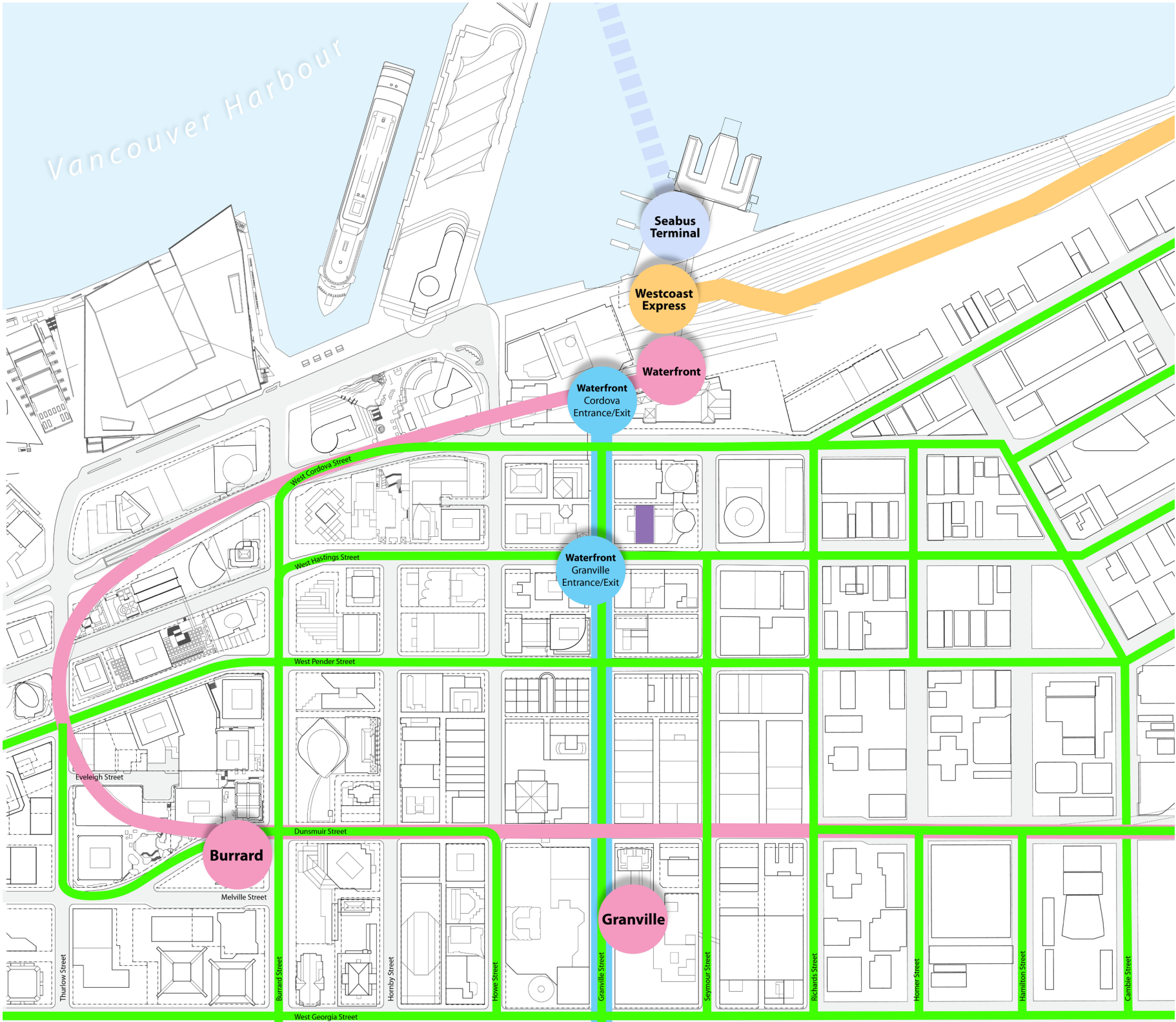
625 W Hastings



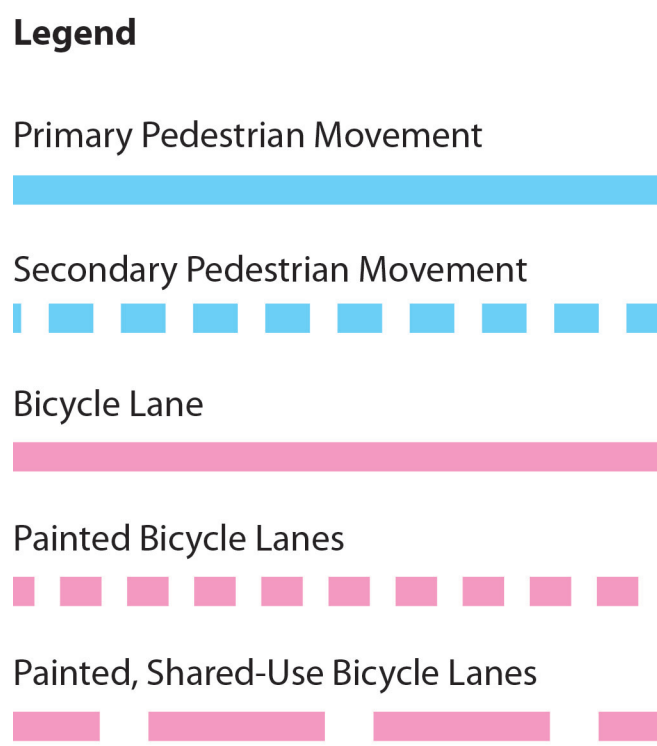
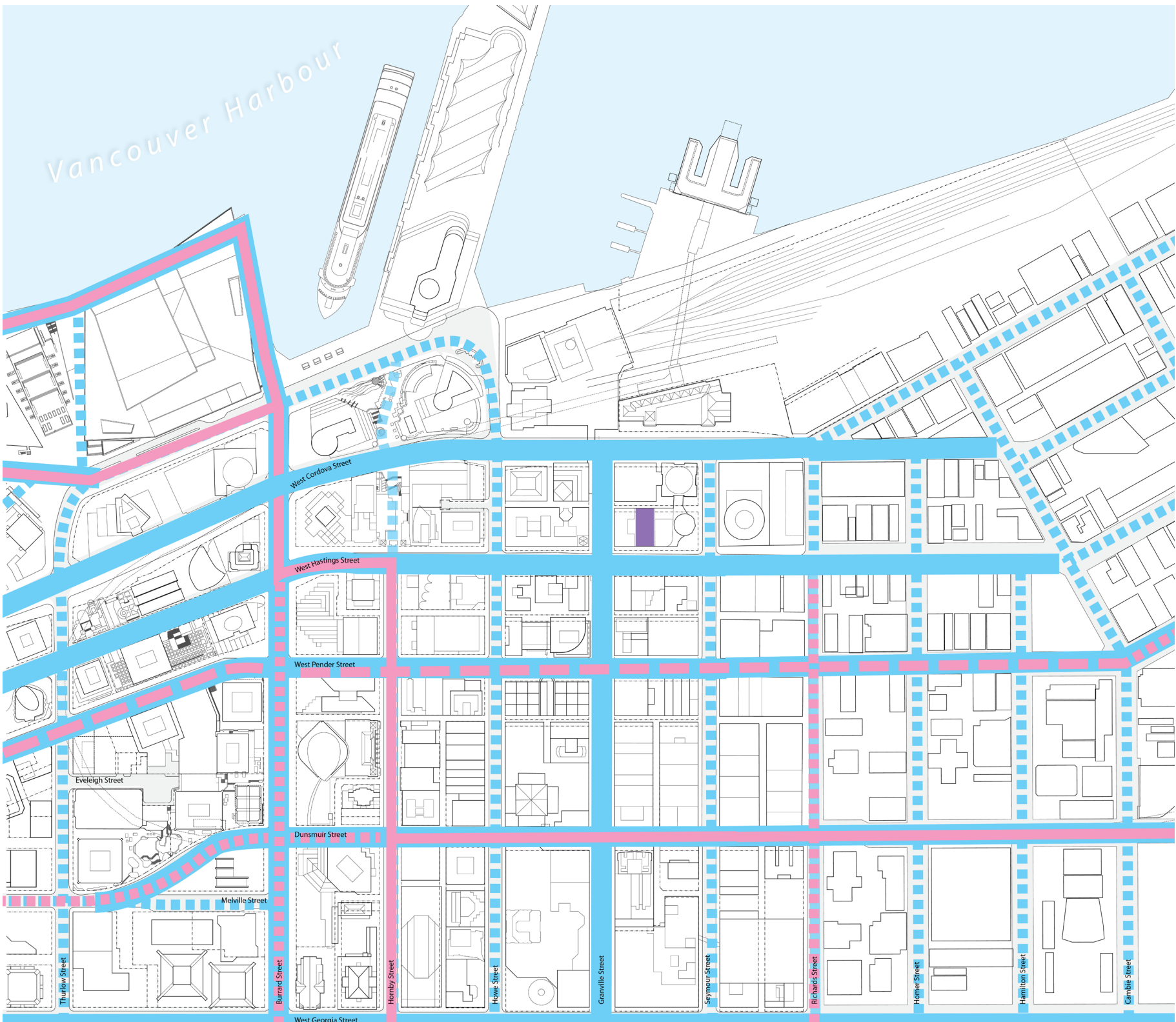
Context & Land Use



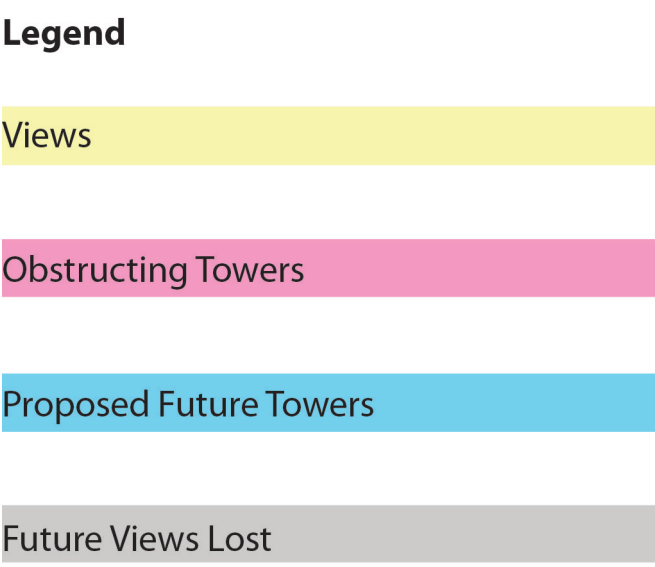
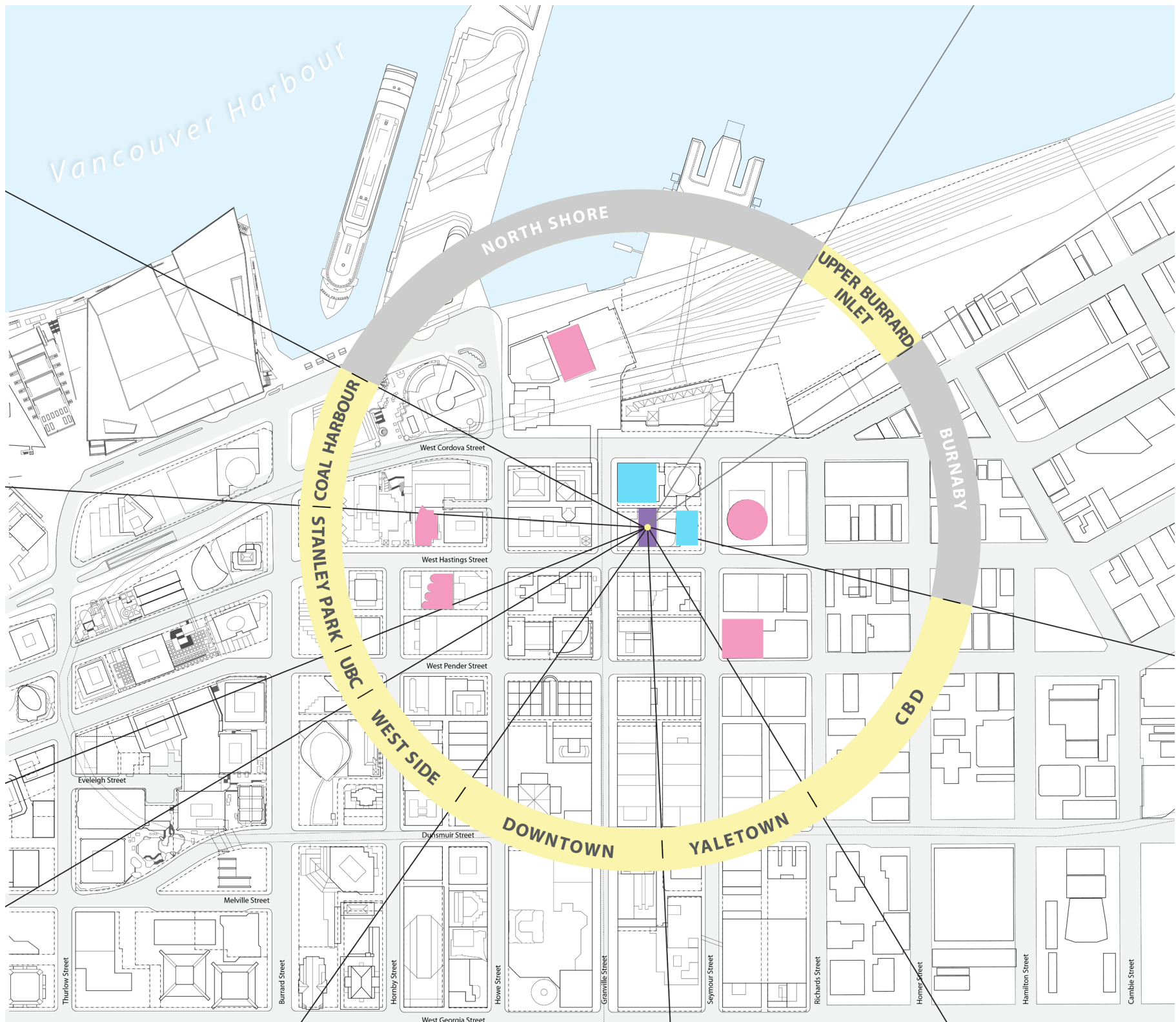
Transit



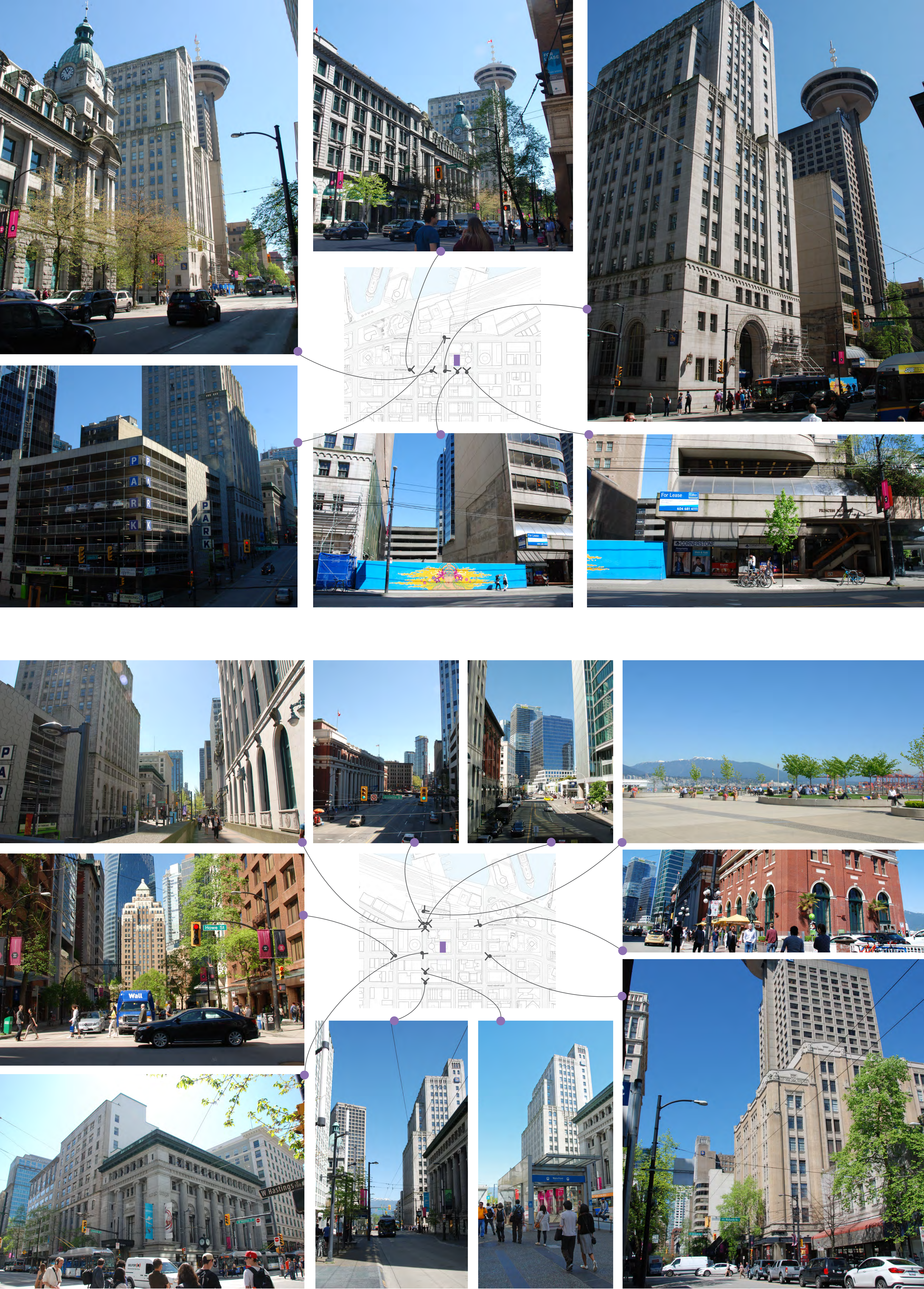
Pedestrian/ Bicycle Circulation

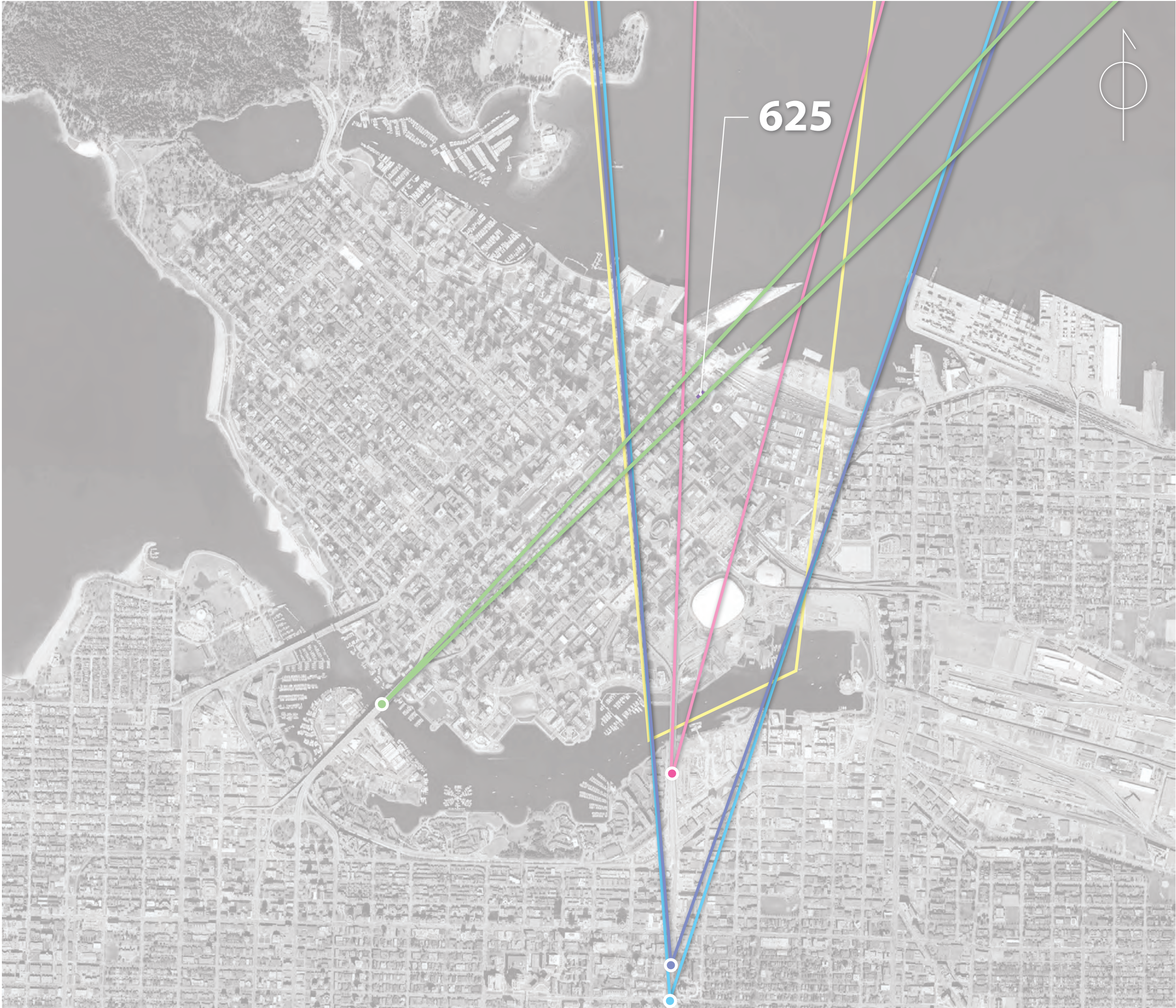


Long Views from Upper Floors



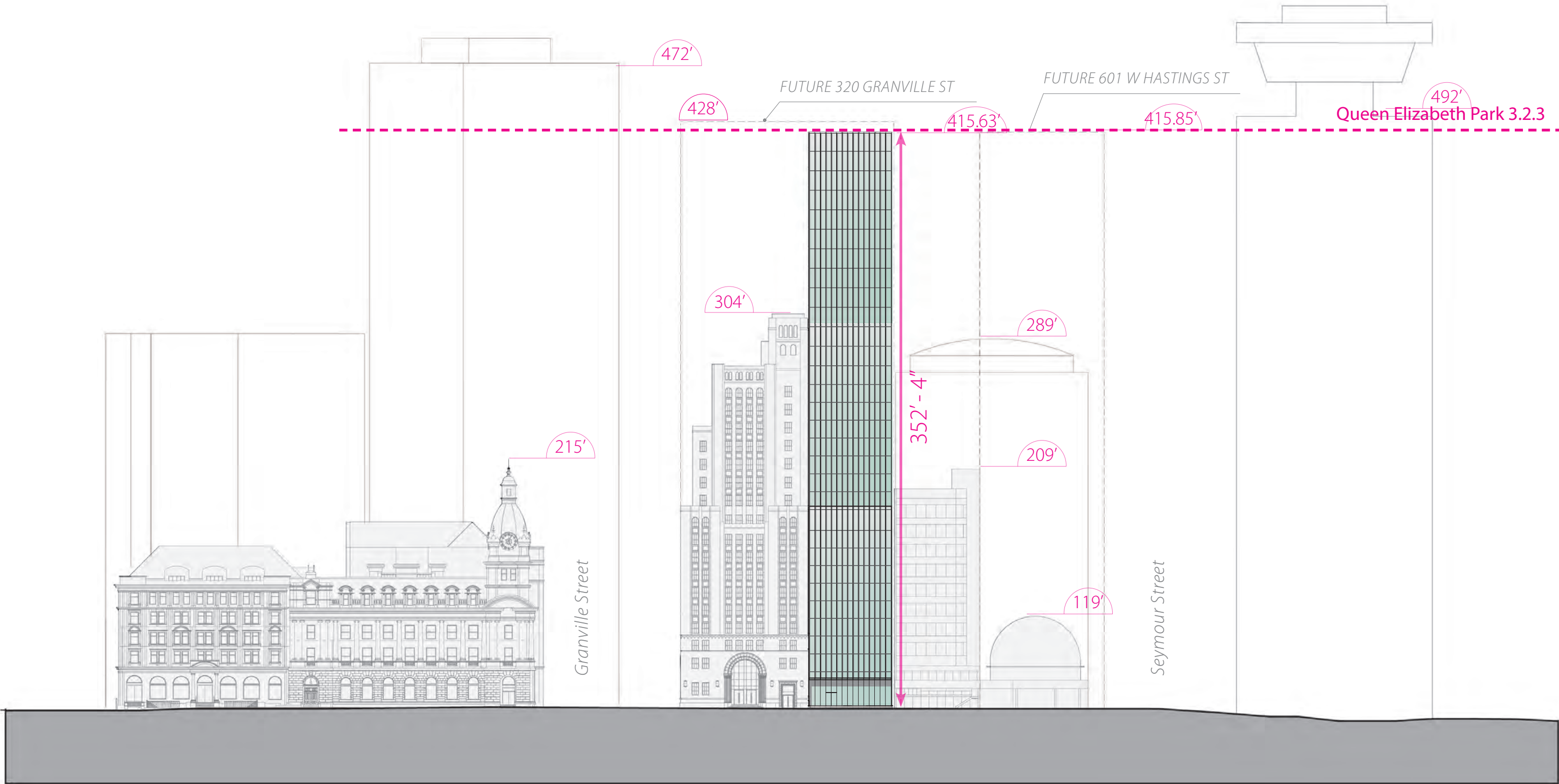
PHOTOGRAPHS (SITE & CONTEXT)



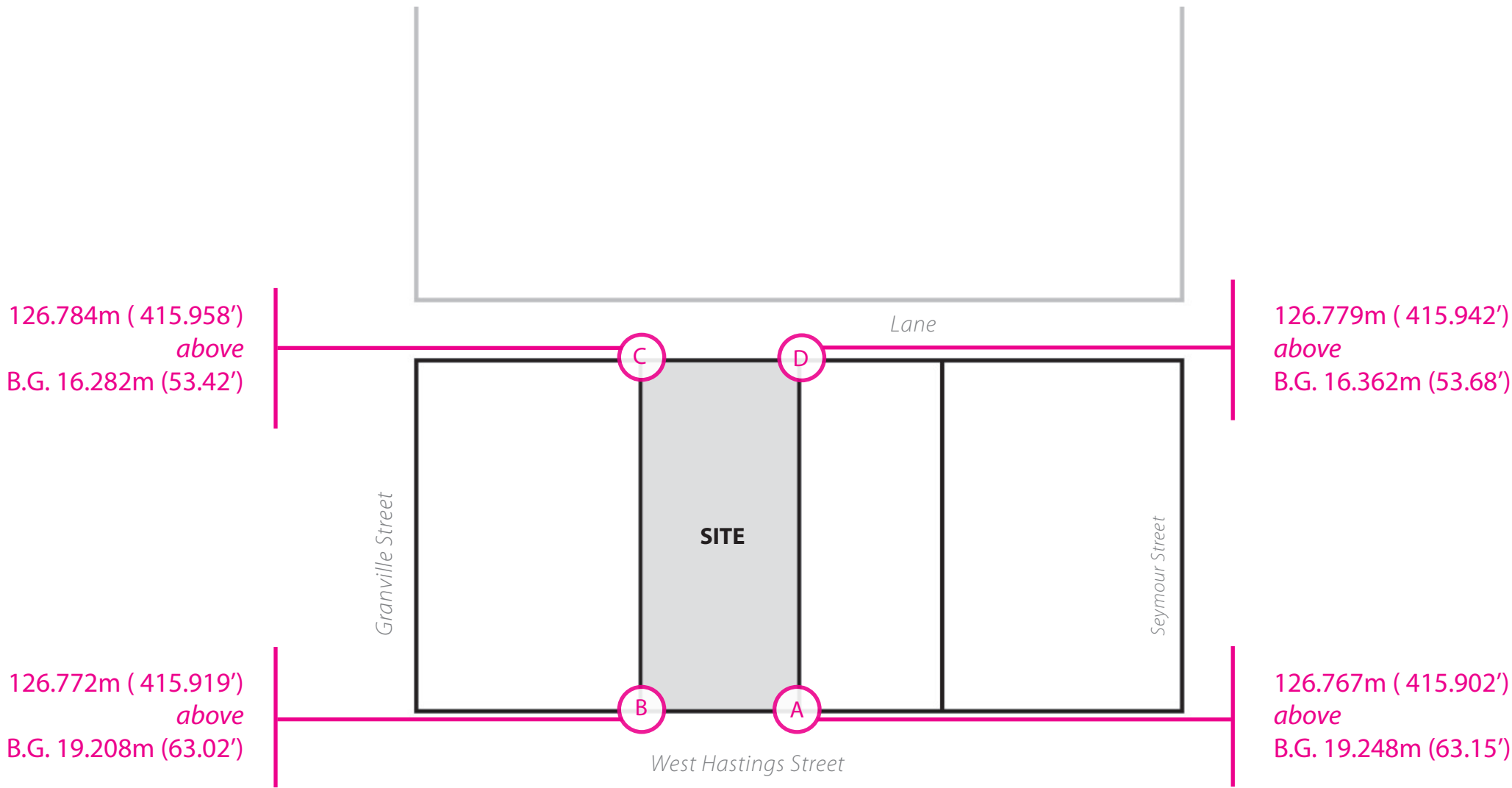


- Legend
- 3.2.3 Queen Elizabeth Park
 - E.1 Cambie Bridge
 - 9.1 Cambie Street
 - 9.2.2 Cambie Street
 - 12.2 Granville Bridge

WEST HASTINGS STREET ELEVATION



QUEEN ELIZABETH PARK
3.2.3. VIEW CONE
(Heights at site)

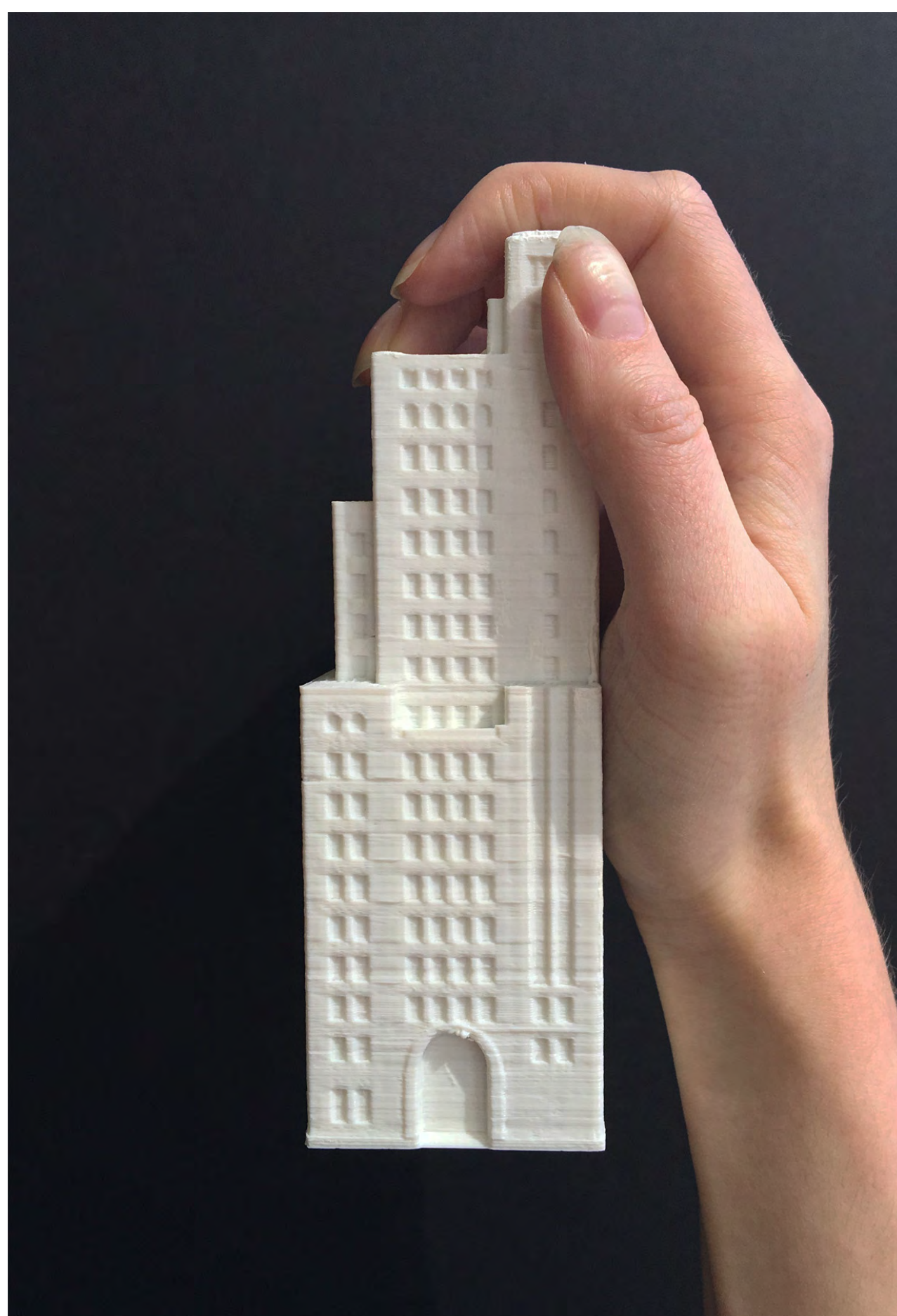


STRUCTURAL SOLUTION

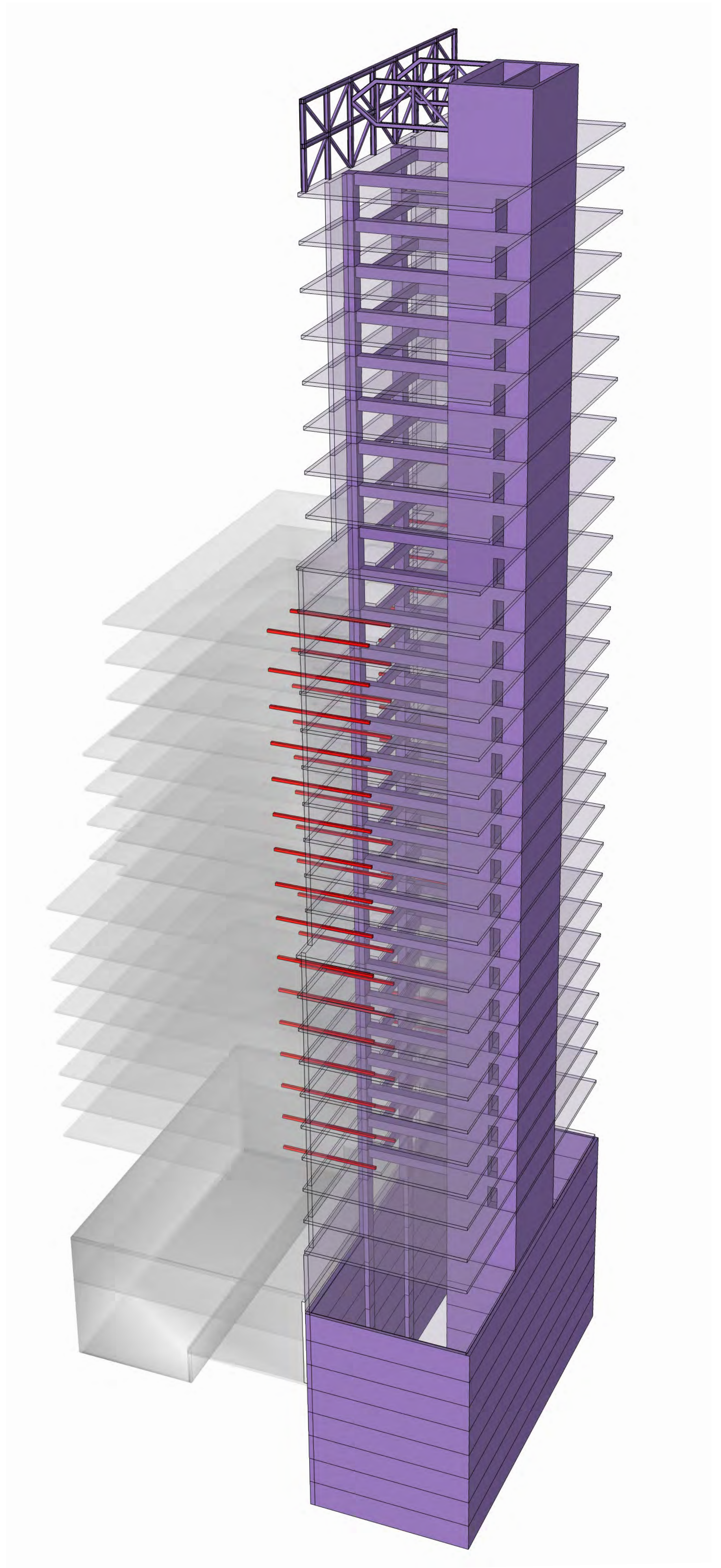
The structural concept proposes sharing of the lateral force resisting system between the new building contemplated at 625 West Hastings with the existing building located at 675 West Hastings, thus providing a seismic upgrade to RBC Building.

The proposed construction of a new office tower at 625 West Hastings will create a unique opportunity to design a new lateral load resisting system within 625 West Hastings that can support both towers. Read Jones Christoffersen Ltd. has provided a preliminary design under the 2012 BCBC for a lateral system that will incorporate adequate strength, stiffness, and ductility to brace both structures for 100% of current code force requirements.

The proposed lateral system utilizes concrete shear walls, moment frame beams, and a rooftop outrigger truss system to provide seismic resistance for the combined buildings.

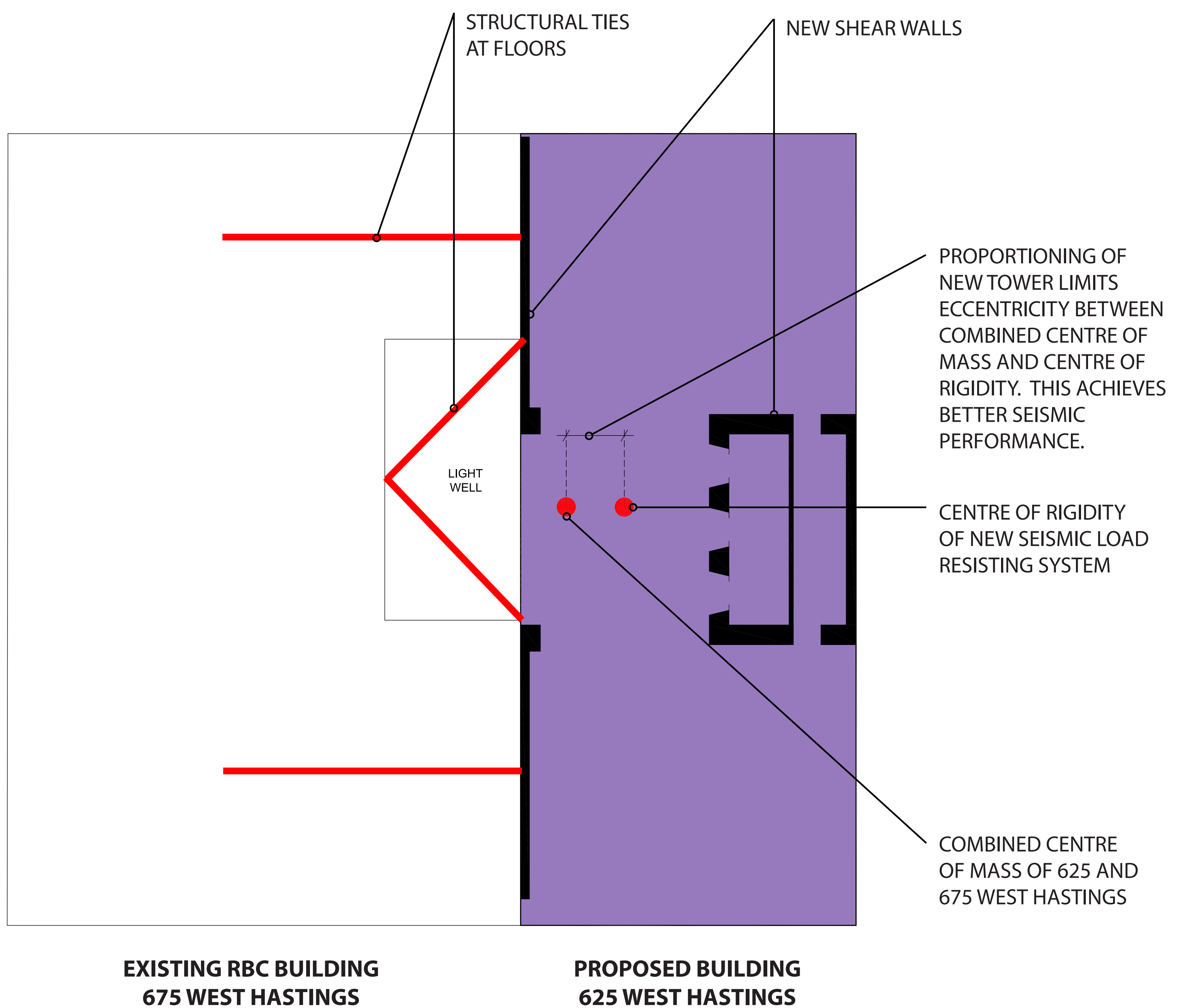


Seismic upgrade to RBC heritage building

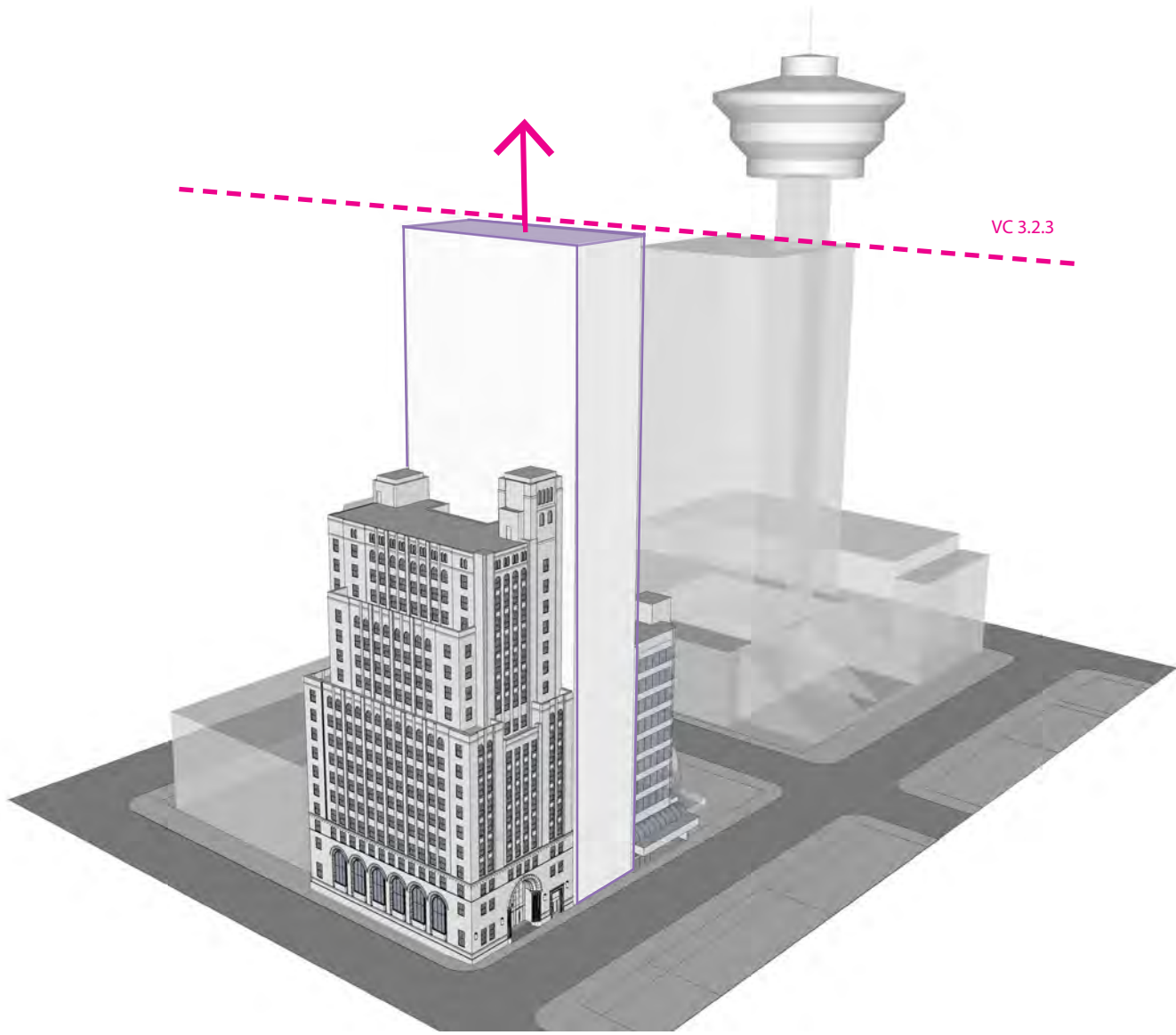
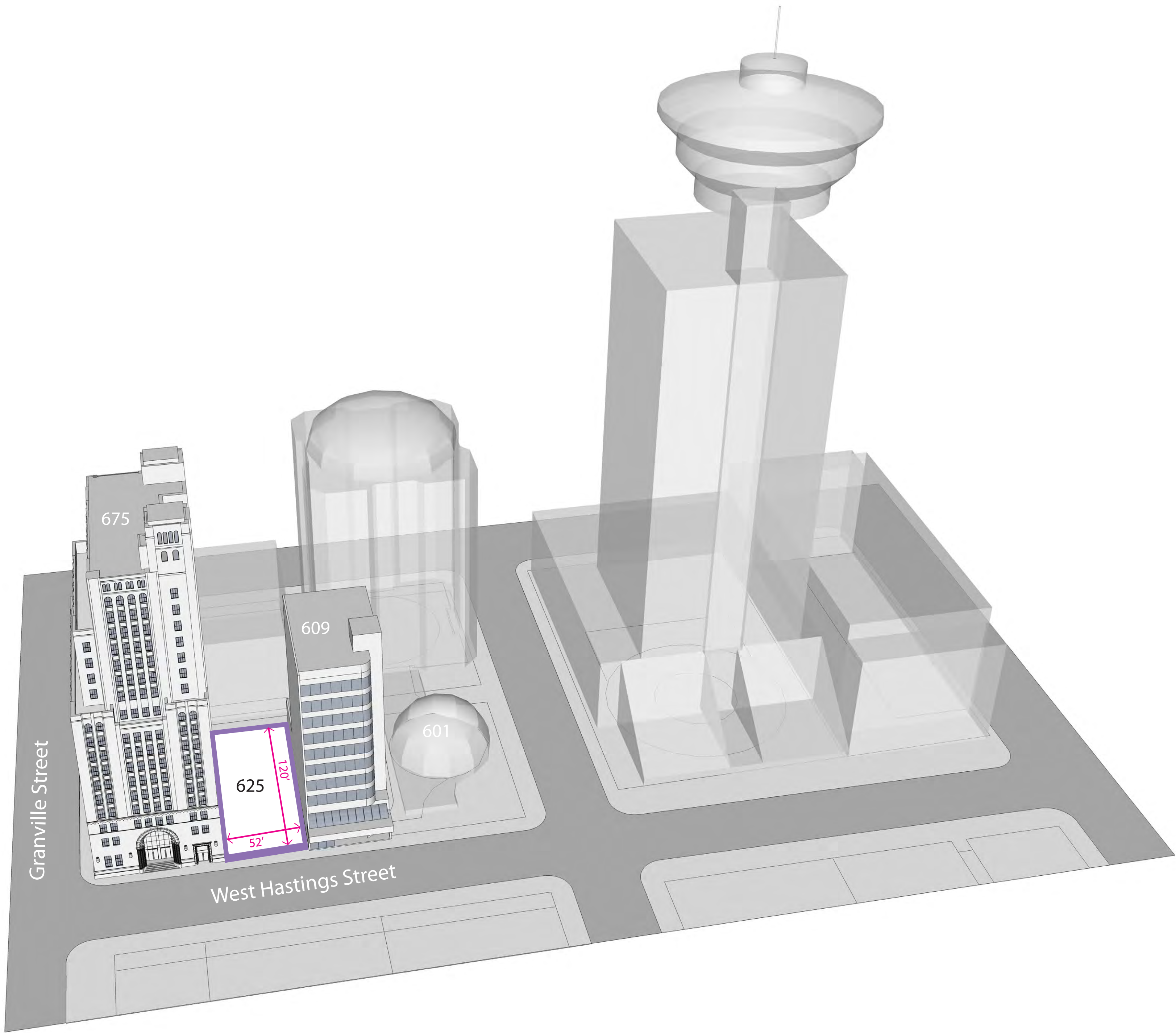


STRUCTURAL SOLUTION

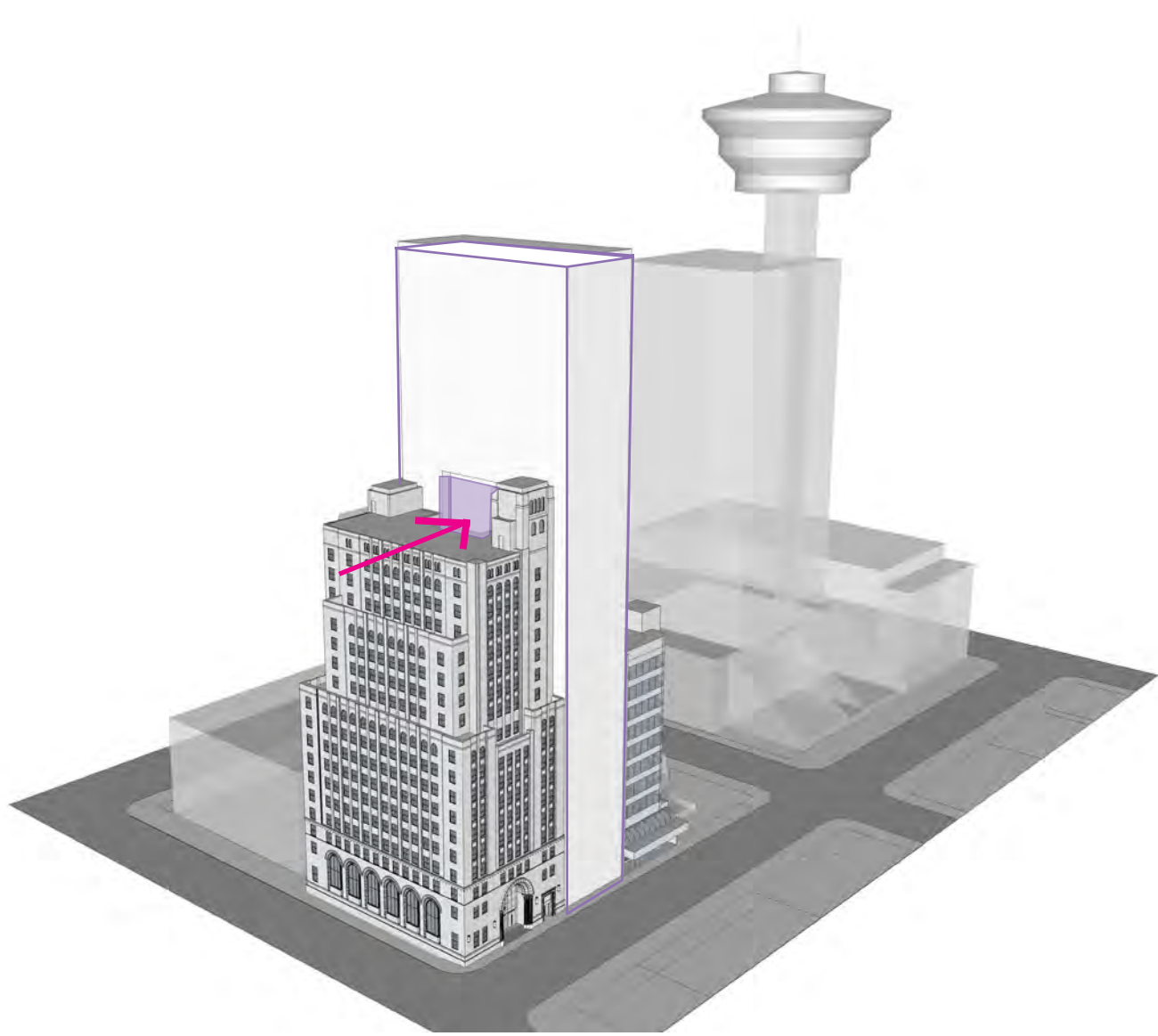
The proportions of the new building have been planned to achieve a combined centre of mass that coincides closely to the centre of rigidity of the new seismic load resisting system.



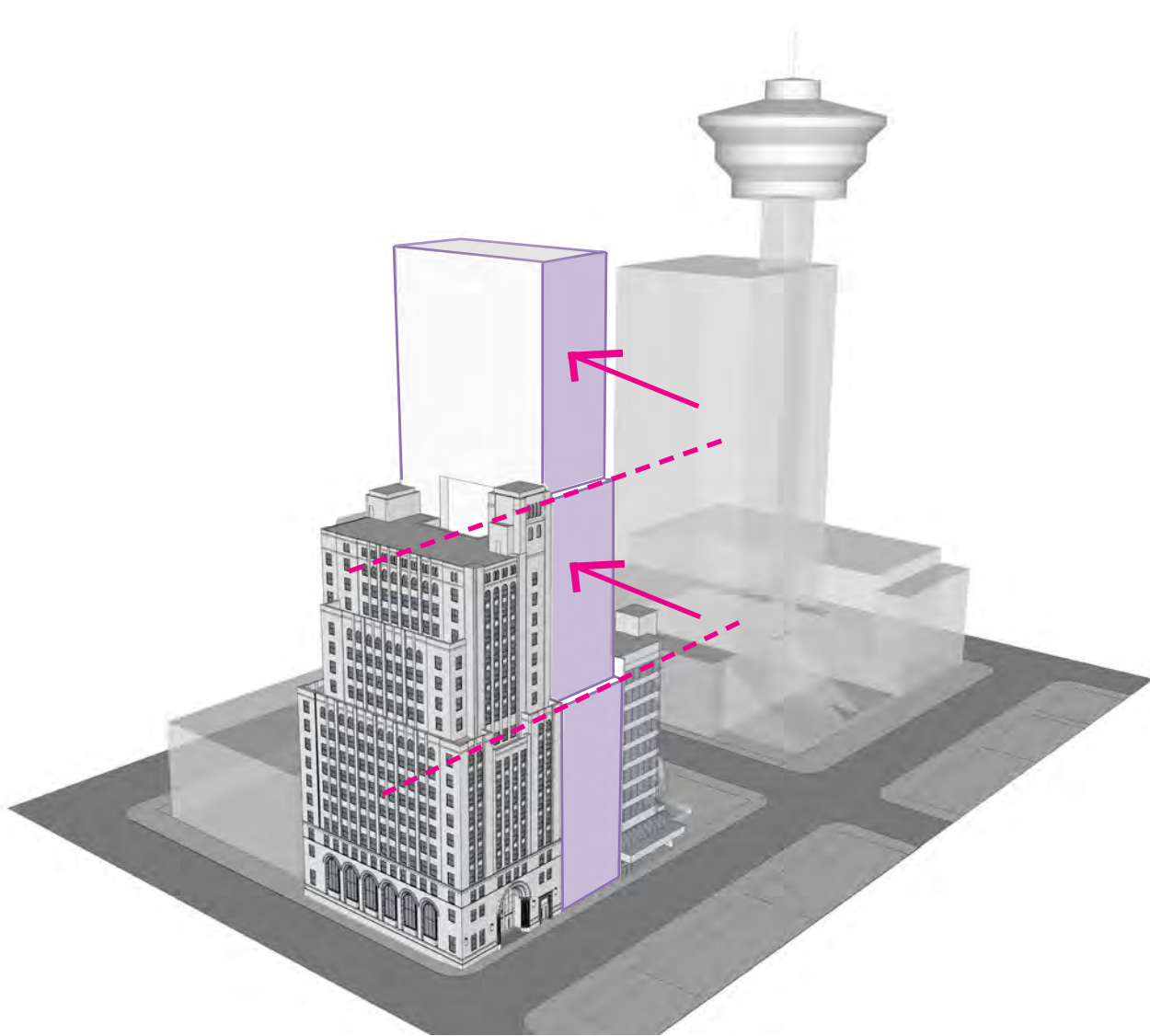
MASSING FORM



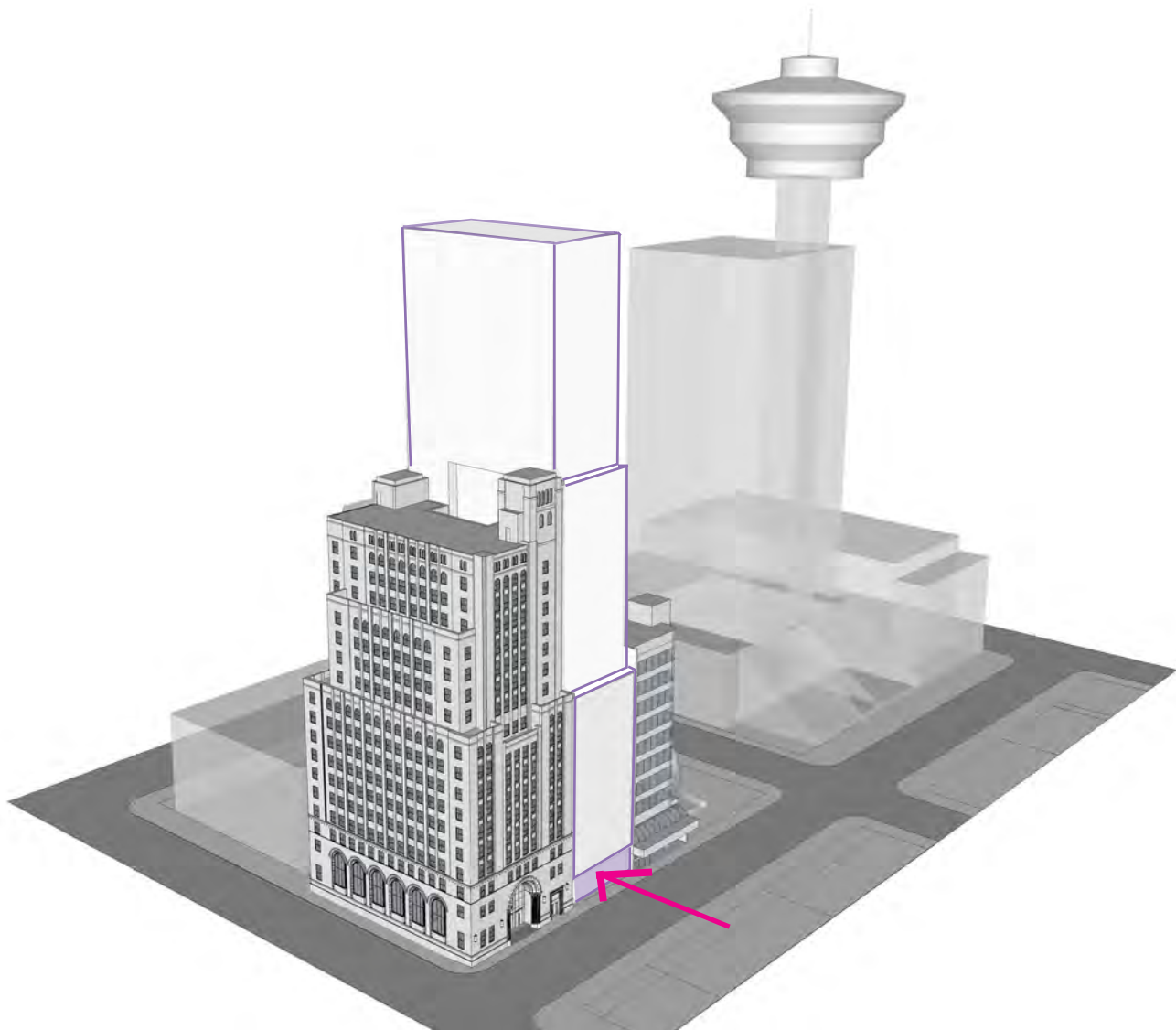
1 | Extrusion up to a height limit set by VC 3.2.3 and provide support for Royal Bank Building.



2 | Create a light well to provide access to light and air for office occupants



3 | Stepped facade respects adjacent Royal Bank building



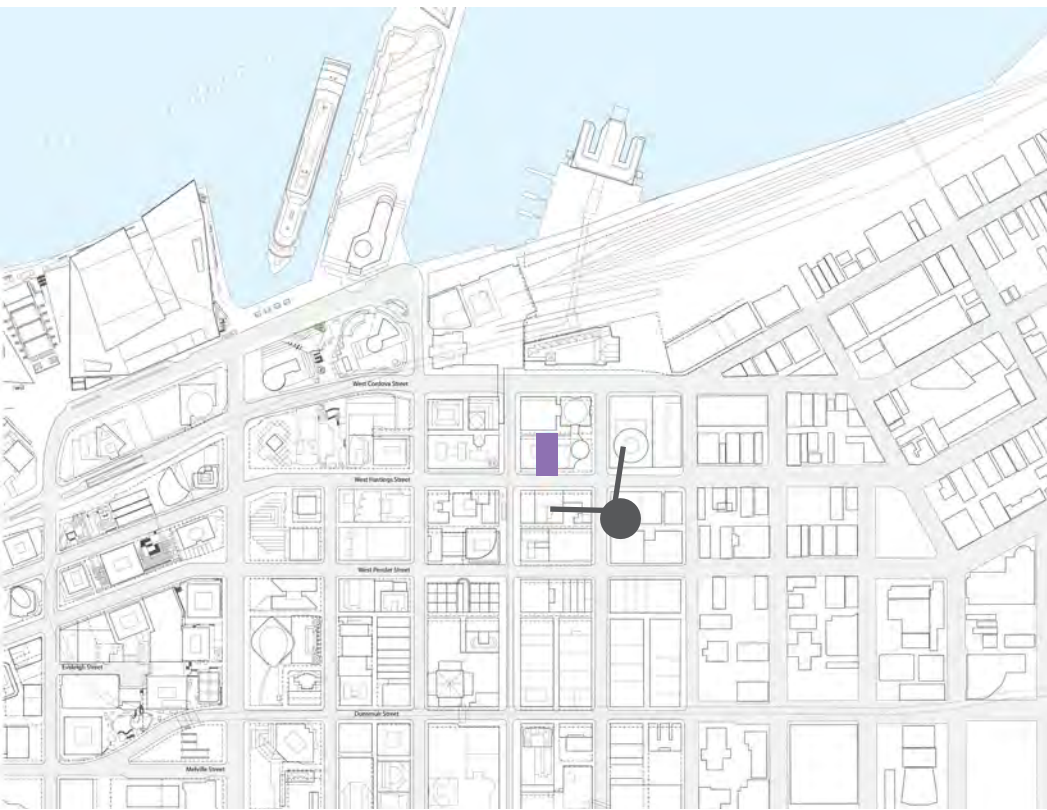
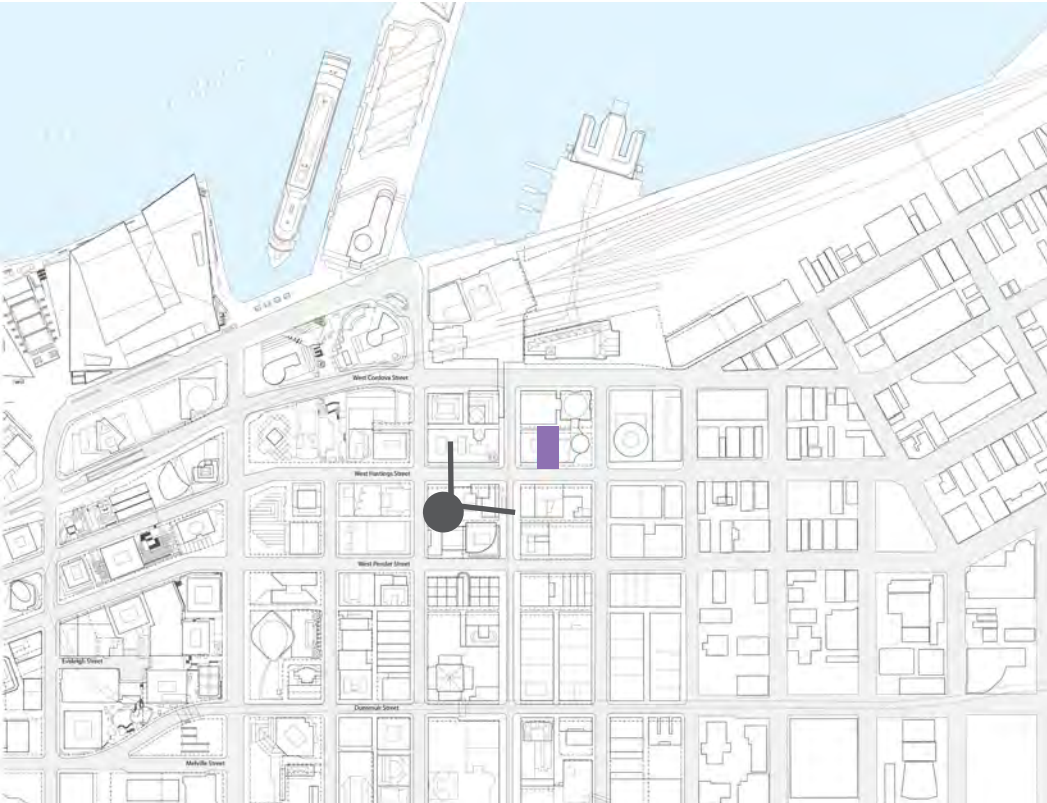
4 | Setback from property line to widen public realm



CONTEXT IMAGES



Musson
Cattell
Mackey
Partnership

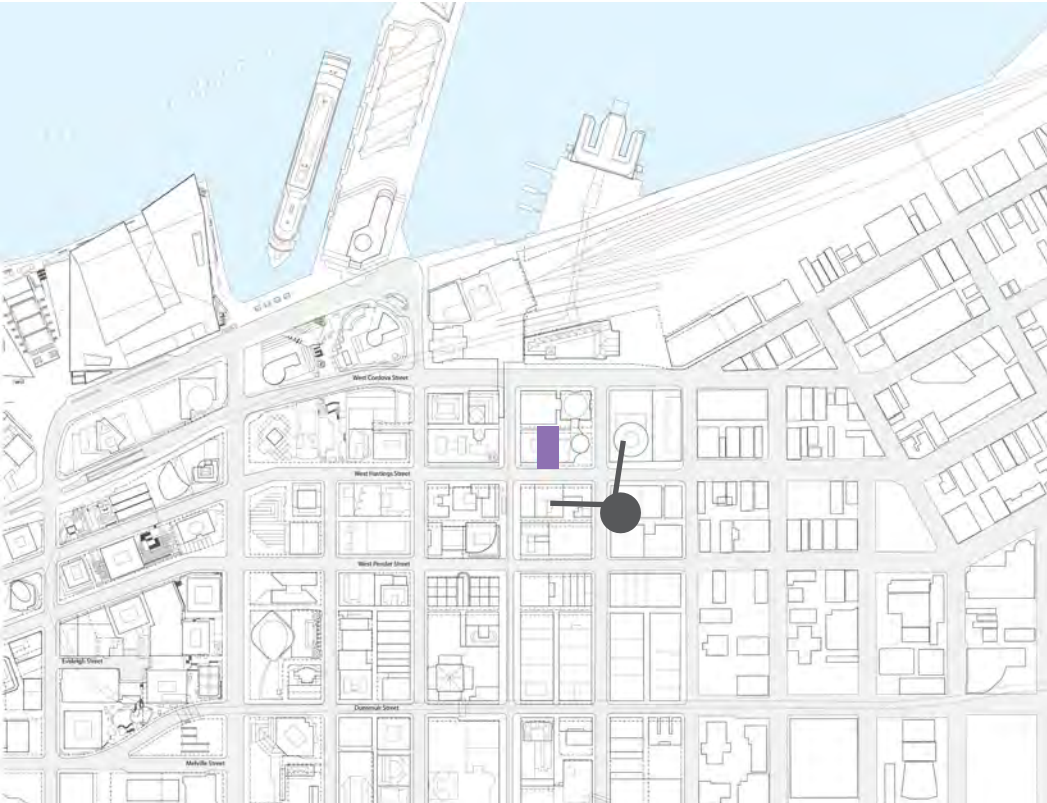




CONTEXT IMAGES



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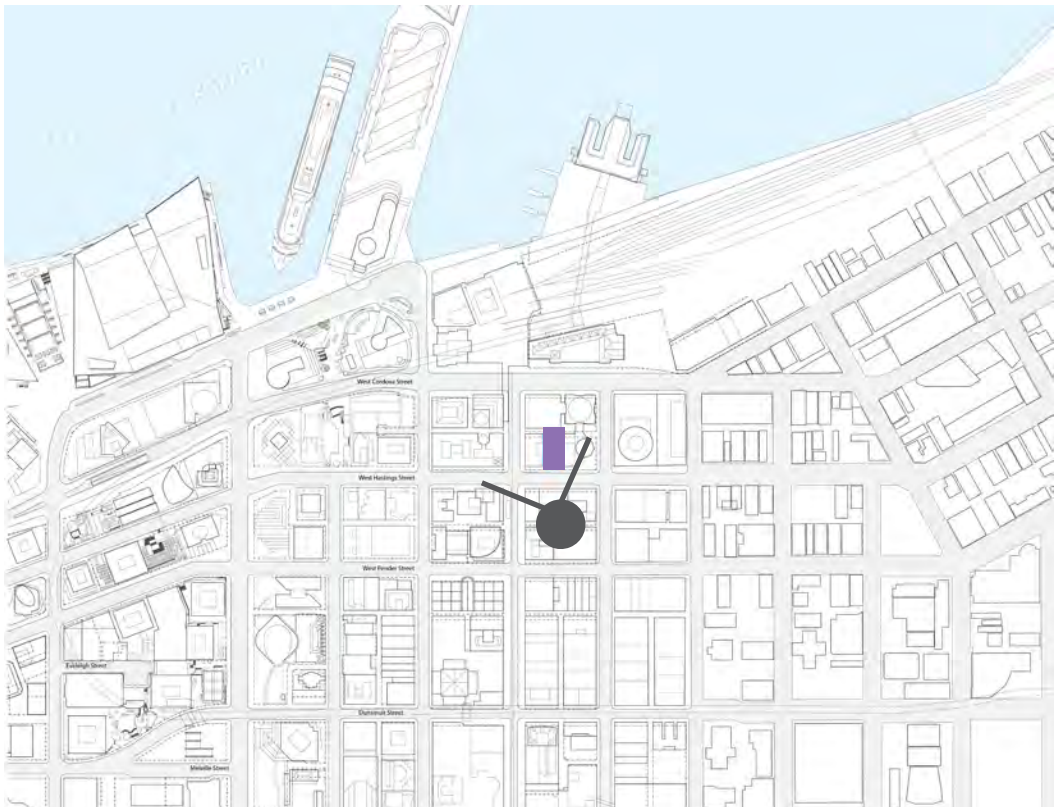




CONTEXT IMAGES



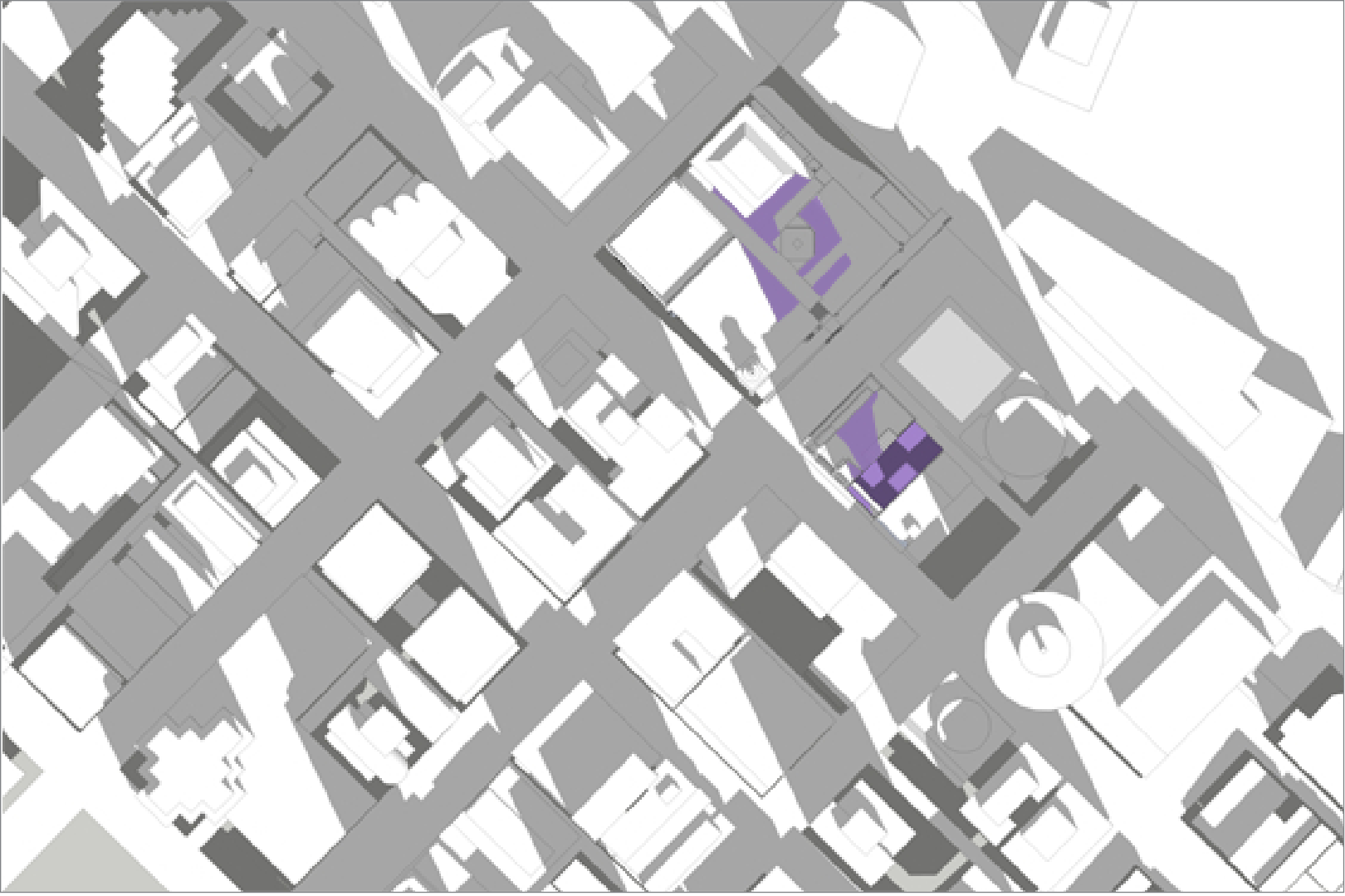
Musson
Cattell
Mackey
Partnership



Equinox



10am

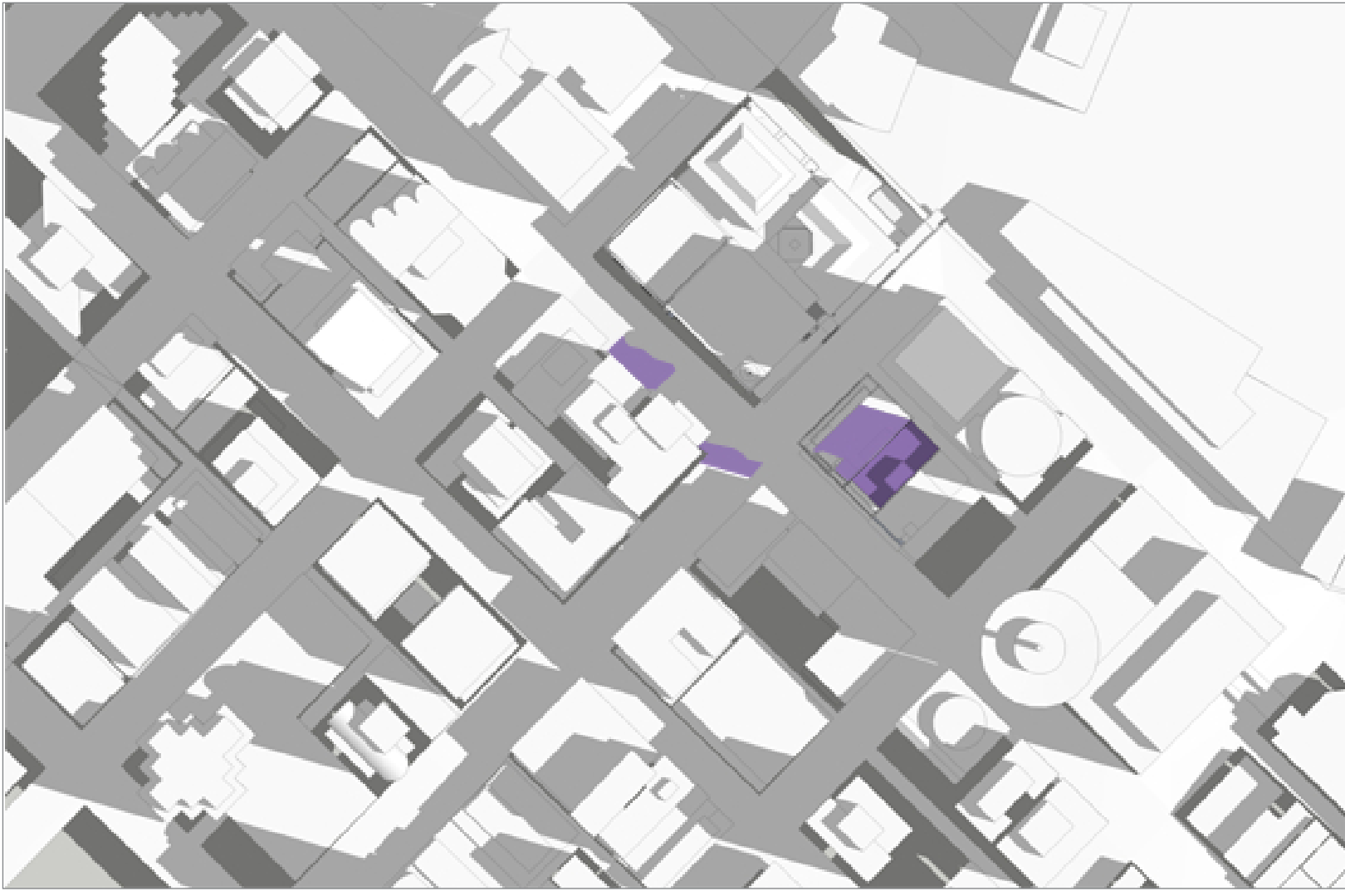


12pm



2pm

Solstice



HERITAGE BENEFITS

Heritage Benefits 675 West Hastings Street

The Royal Bank Tower is a downtown Vancouver landmark and one of the most significant commercial buildings in the city. This project will preserve and rehabilitate this structure, and therefore protect the heritage values as outlined in the Statement of Significance. This invests in the ongoing conservation of the building, in addition to providing continuing legal protection.

Protection of Heritage Values

At the time of its completion in 1931, the Royal Bank Tower was an anchor in Vancouver's financial district as the city expanded westward to create a new downtown core. This historic building features a unique blend of Art Deco massing, Neo-Romanesque motifs, and classical details that reflect the progressive look of a modern skyscraper, as influenced by New York's 1916 setback laws and Eiel Saarinen's seminal blend of Gothic verticality and modernist detailing of his 1922 Chicago Tribune competition entry. By the late 1920, the economy was finally recovering from the austerity of the post-World War One era, as reflected in the construction of new skyscrapers and opulent buildings such as the Marine Building and the Hotel Vancouver. A number of these projects were stalled due to the onset of the Depression, but the completion of the Royal Bank signaled the strength of the Canadian banking system, and the company's commitment to the development of the west. As part of this project, the Royal Bank Tower will receive municipal heritage designation of the building exterior, thereby protecting its heritage value for future generations.

Protection of Character-Defining Elements

The character-defining exterior elements, as outlined in the Statement of Significance, will be conserved as part of this project. All work will be undertaken in conformance with the Standards and Guidelines for the Conservation of Historic Places in Canada.

Rehabilitation / Seismic Upgrading

The rehabilitation of the Royal Bank Tower will allow for the much-needed seismic upgrade of its existing structure, with the integration of the structure as part of the proposed adjacent development. In addition to protecting the asset in case of a seismic event, this will enhance the life safety performance of the building. Further rehabilitation measures will also be undertaken, including the anchoring of parapets and balustrades, to ensure their long-term conservation.



PUBLIC BENEFITS

- Improvement to the **Public Realm** by widening the sidewalk and providing a continuous streetscape experience.
- Visual **improvement** to the **streetscape** by creating an architectural form embracing and respectfully responding to massing of adjacent Royal Bank Building.
- Development and revitalization of the site by providing **high density, transit oriented workspace**.
- Significant opportunities for **job growth**.
- Higher **transit utilization** in all nodes.

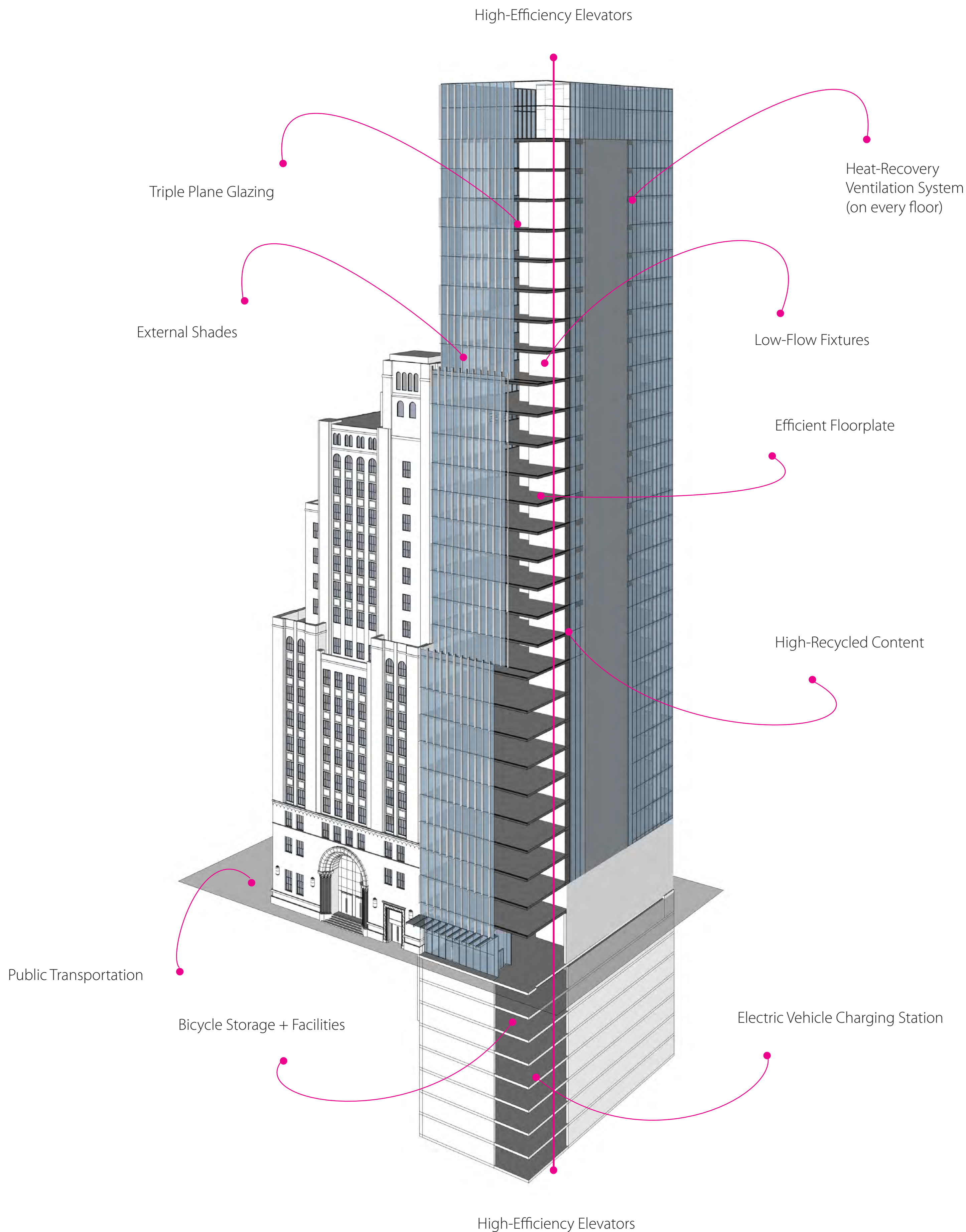
Benefits of Local Procurement

The scale and workspace oriented nature of this proposal will produce a diversified, ongoing positive economic impact within the downtown. Local employment opportunities within construction and related fields are envisioned and an increased market for local goods and services will be generated by the occupants. Locally sourced materials and products will have priority as part of a wider sustainable materials selection strategy. Opportunities also exist for training and education to be incorporated into construction and maintenance programs.

Benefits of Local Transit Impacts

A successful high density office project sharing a block with a Skytrain station and developed to an appropriately higher "useable" density will result in significantly higher on site employment and greater use of the Granville SkyTrain Station. Increased transit use will have positive impacts on the overall livability and environment of the Lower Mainland.





The building will be designed to provide a high level of performance while minimizing overall energy consumption. This will be achieved with a combination of a high performance building envelope, efficient lighting and localized HVAC equipment.

A) Envelope

The overall building envelope will have a 65% window to wall ratio. To reduce its impact on the mechanical energy consumption, a high performance triple glazing panel system will be installed. The entire envelope system will have a higher performance than ASHRAE 90.1-2010 resulting in a more energy efficient building. Further envelope treatments will be explored during the design phase such as tint, frit and shading.

B) Lighting

Internal lighting will be designed to meet ASHRAE 90.1-2010 requirements including stepped daylight dimming at the perimeter spaces to take advantage of bright and sunny days. Within the interior zones, occupancy sensors will be installed. Both of these steps will reduce the overall energy consumption in the building and reduce load on the cooling system. Further reduction of lighting power density will be reviewed in the design phase.

C) Mechanical

Instead of having one large central mechanical plant, each floor will have its own dedicated localized heating and cooling plants. A variable refrigerant flow

(VRF) system with several ceiling mounted cassettes and variable fan flow will be installed throughout the floor. These cassettes will then be piped into one water cooled condenser on that floor where the heating or cooling will either be shared between the cassettes on each floor, based on load requirements, or rejected/ absorbed through a common condenser water loop. This condenser water loop will be the one common central building system routed to a fluid cooler on the roof. An electric boiler will also be installed to provide additional top-up heat when needed.

Ventilation will be accomplished with localized heat recovery ventilators (hrv). The exhaust from the washrooms will provide preheat to the incoming outdoor air as through flow over a plate heat exchanger. The outdoor air will then be ducted to each cassette to ensure the fresh air is supplied to all occupants. Further heat recovery savings will be explored during the design phase.

Advantages of this approach:

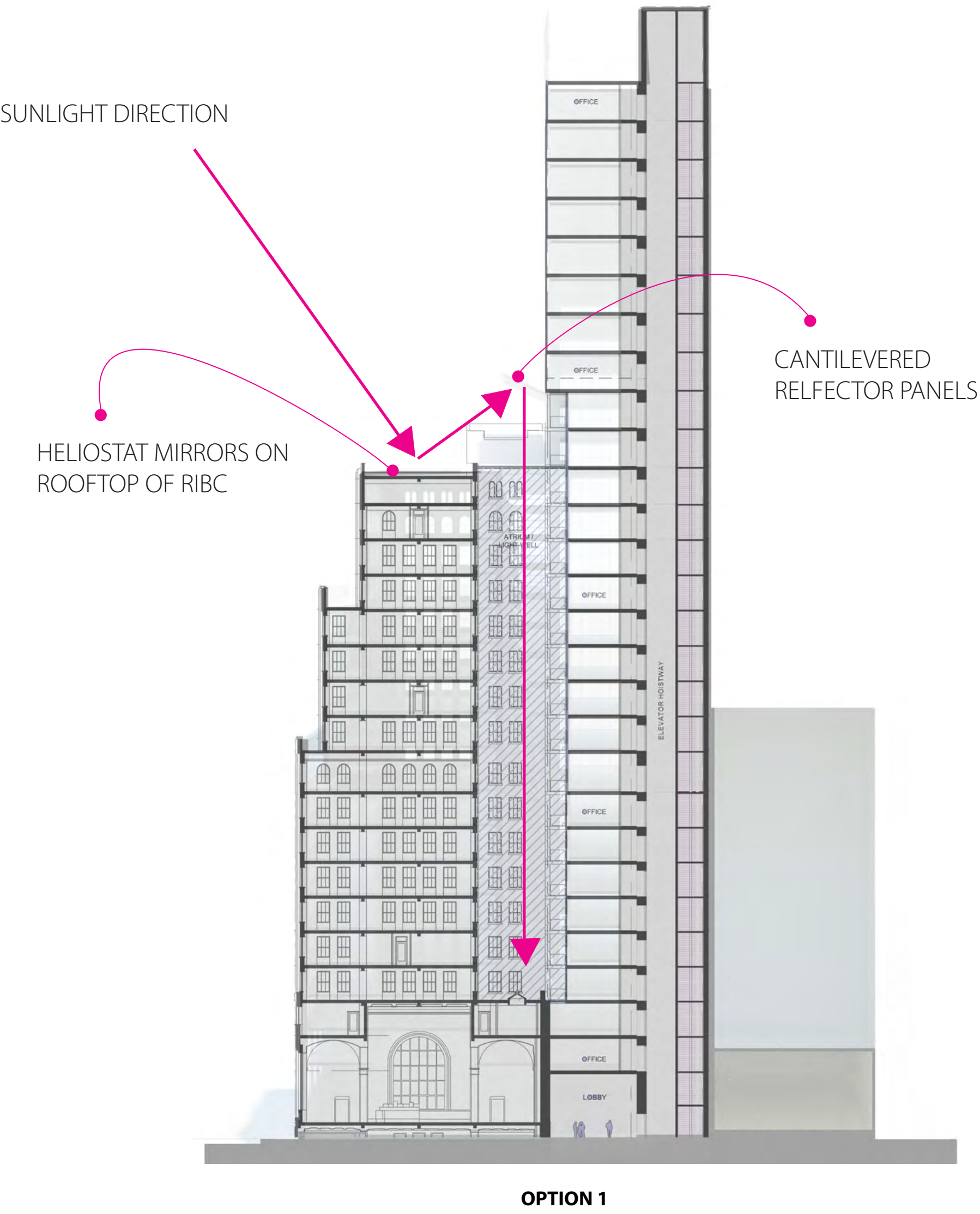
- 1. Localized floor by floor systems reduce the overall central mechanical plant therefore reducing overall pump and fan power consumption. The power consumption is more in line with true building demand.**
- 2. A VRF mechanical system only uses electricity for building heat. Natural gas will not be supplied to this building and therefore will reduce its overall impact on greenhouse gas emissions.**

HELIOSTAT

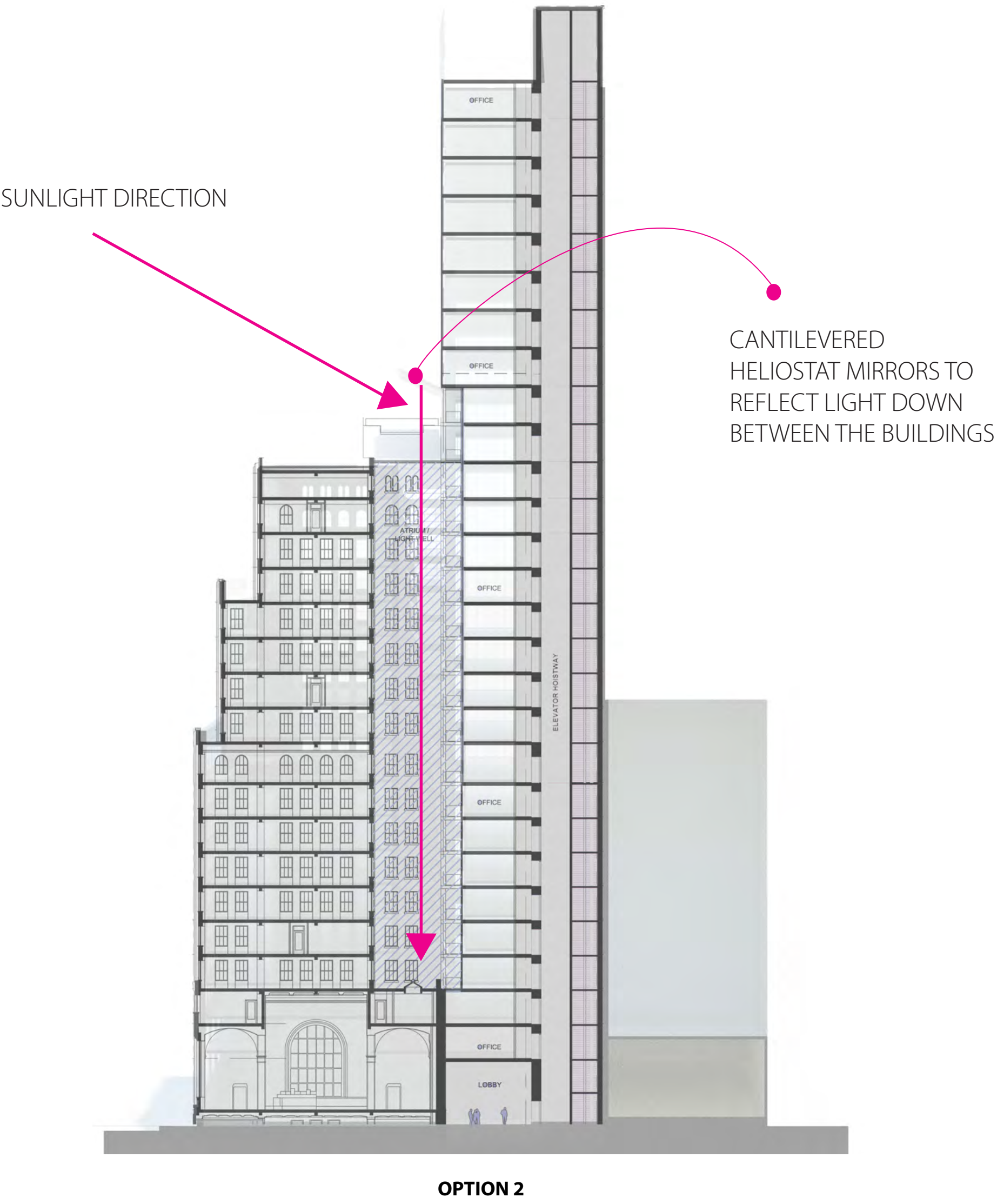


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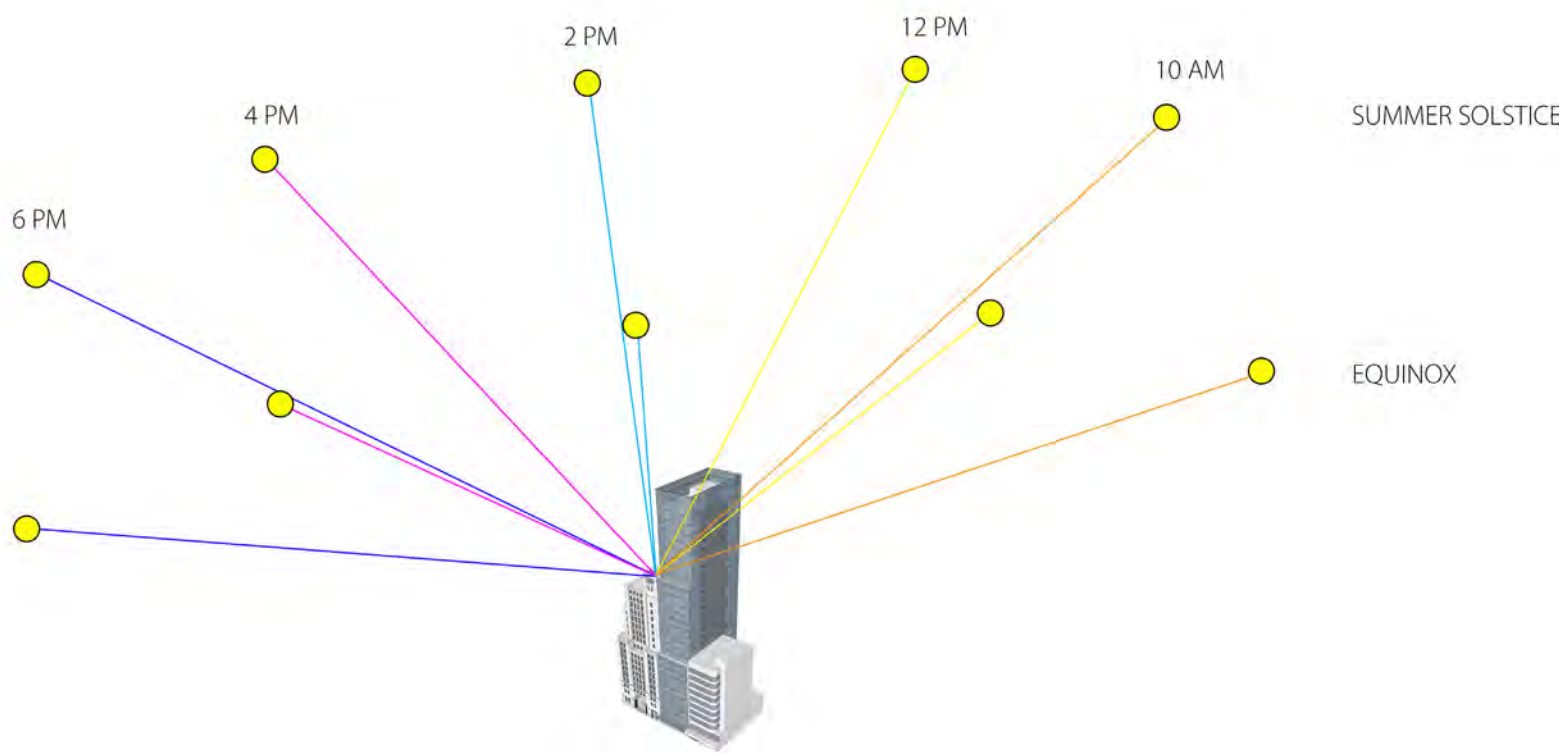
SUMMER SOLSTICE - 2PM



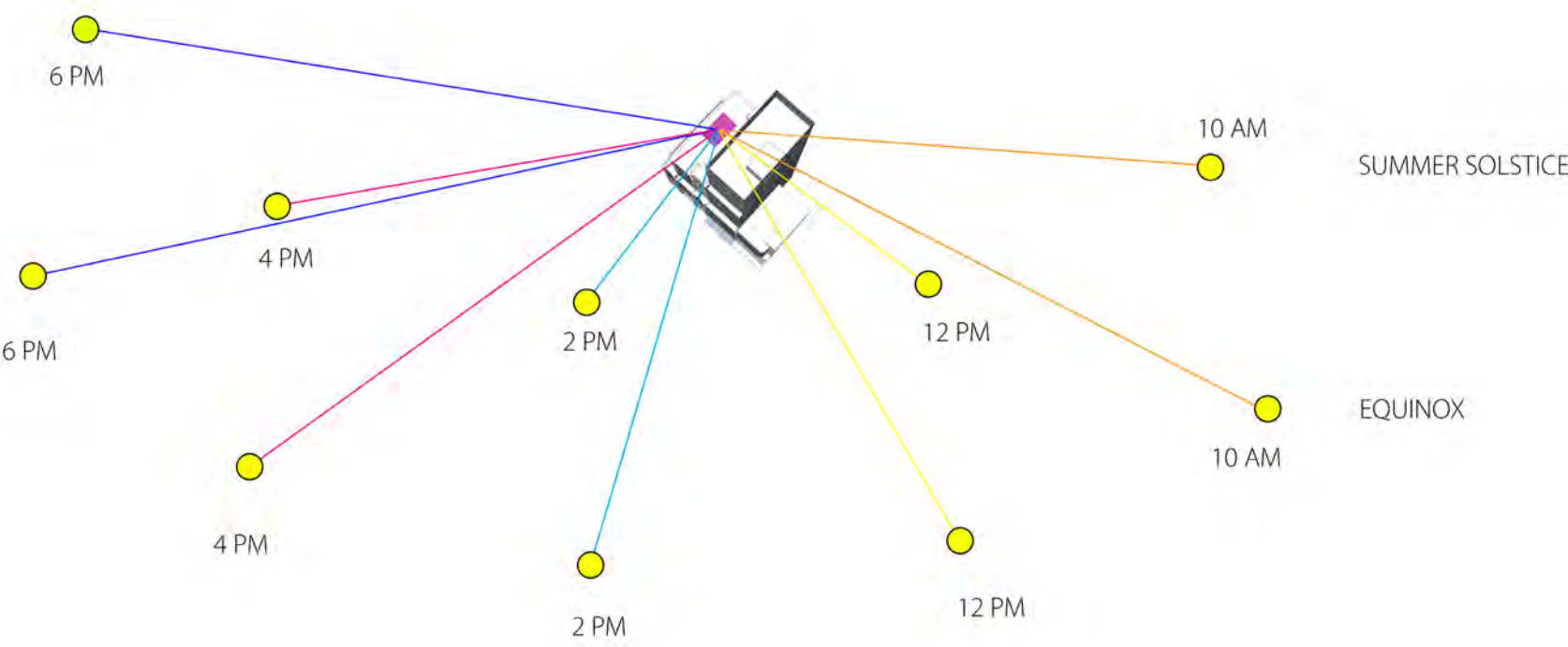
SUMMER SOLSTICE - 2PM



SOLAR PATH VIEW



SOLAR PATH PLAN



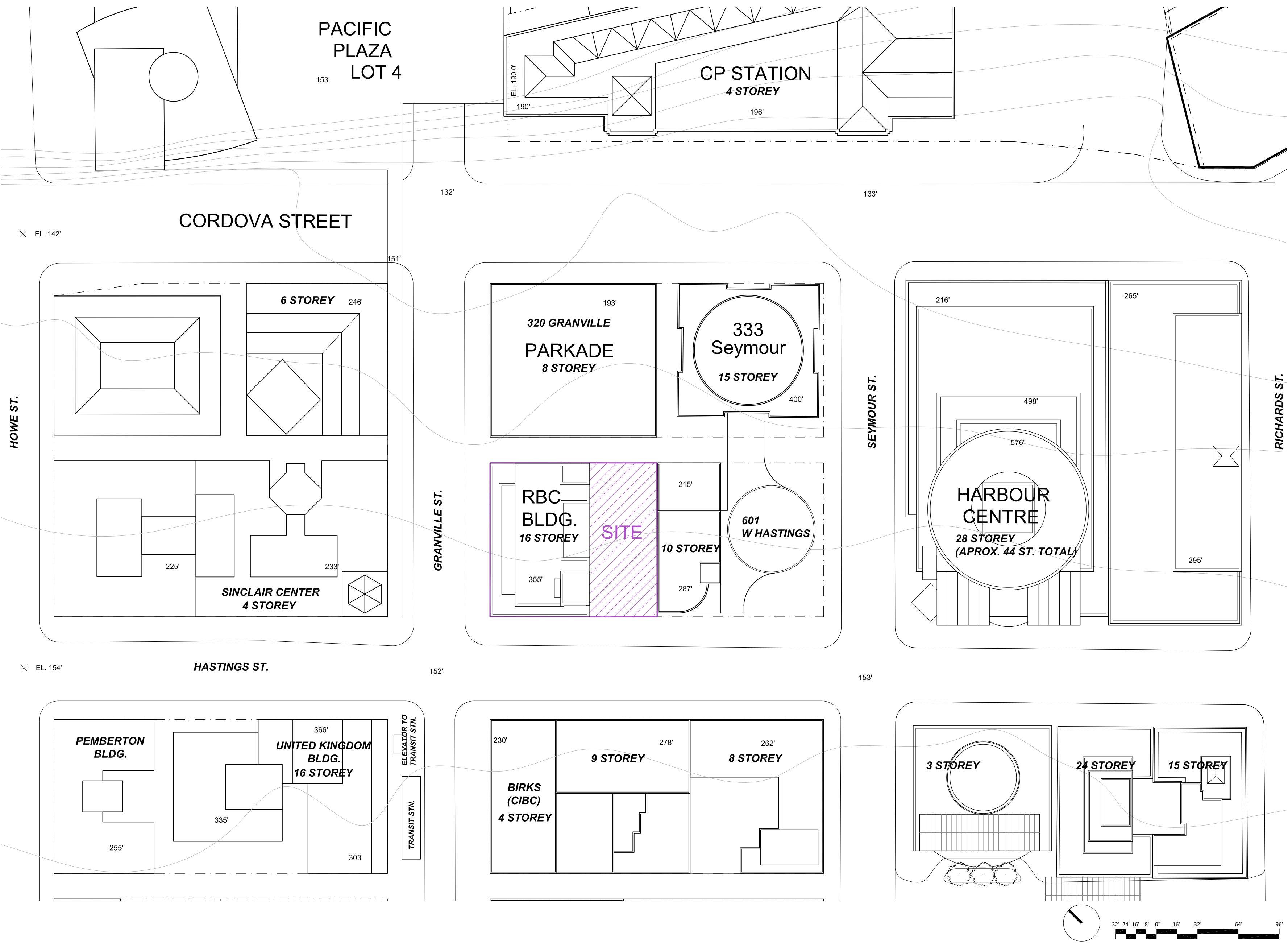
LEED SCORECARD

Yes ? No			651728			Project Totals (pre-certification estimates)			110 Possible Points					
						Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80 points and above								
Yes ? No			2242			Sustainable Sites			28 Points					
✓						Prereq 1			Construction Activity Pollution Prevention			Required		
1						Credit 1			Site Selection			1		
5						Credit 2			Development Density and Community Connectivity			3, 5		
			1			Credit 3			Brownfield Redevelopment			1		
6						Credit 4.1			Alternative Transportation: Public Transportation Access			3, 6		
2						Credit 4.2			Alternative Transportation: Bicycle Storage & Changing Rooms			2		
3						Credit 4.3			Alternative Transportation: Low-Emitting & Fuel-Efficient Vehicles			3		
			2			Credit 4.4			Alternative Transportation: Parking Capacity			2		
			1			Credit 5.1			Site Development: Protect and Restore habitat			1		
			1			Credit 5.2			Site Development: Maximize Open Space			1		
1						Credit 6.1			Stormwater Design: Quantity Control			1		
1						Credit 6.2			Stormwater Design: Quality Control			1		
1						Credit 7.1			Heat Island Effect: Non-Roof			1		
1						Credit 7.2			Heat Island Effect: Roof			1		
			1			Credit 8			Light Pollution Reduction			1		
1						Credit 9			Tenant Design and Construction Guidelines			1		
Yes ? No			316			Water Efficiency			10 Points					
✓						Prereq 1			Water Use Reduction			Required		
			4			Credit 1			Water Efficient Landscaping			2, 4		
			2			Credit 2			Innovative Wastewater Technologies			2		
3			1			Credit 3			Water Use Reduction			2 - 4		
Yes ? No			20413			Energy & Atmosphere			37 Points					
✓						Prereq 1			Fundamental Commissioning of Building Energy Systems			Required		
✓						Prereq 2			Minimum Energy Performance			Required		
✓						Prereq 3			Fundamental Refrigerant Management			Required		
12			4			Credit 1			Optimize Energy Performance			3 - 21		
			4			Credit 2			On-Site Renewable Energy			2, 4		
2						Credit 3			Enhanced Commissioning			2		
			2			Credit 4			Enhanced Refrigerant Management			2		
3						Credit 5.1			Measurement and Verification: Base Building			3		
3						Credit 5.2			Measurement and Verification: Tenant Submetering			3		
			2			Credit 6			Green Power			2		
Yes ? No			517			Materials & Resources			13 Points					
✓						Prereq 1			Storage and Collection of Recyclables			Required		
			5			Credit 1			Building Reuse: Maintain Existing Walls, Floors, and Roof			1		
2						Credit 2			Construction Waste Management - >75% (95% targeted)			1		
			1			Credit 3			Materials Reuse			1		
1			1			Credit 4			Recycled Content - 10% target (+15% targeted)			1		
1			1			Credit 5			Regional Materials - 30% target (+30% targeted)			1		
1						Credit 6			Certified Wood - 50% target (Status Pending with Trades)			1		
Yes ? No			930			Indoor Environmental Quality			12 Points					
✓						Prereq 1			Minimum Indoor Air Quality Performance			Required		
✓						Prereq 2			Environmental Tobacco Smoke (ETS) Control			Required		
1						Credit 1			Outdoor Air Delivery Monitoring			1		
			1			Credit 2			Increased Ventilation			1		
1						Credit 3			Construction IAQ Management Plan: During Construction			1		
1						Credit 4.1			Low-Emitting Materials: Adhesives and Sealants			1		
1						Credit 4.2			Low-Emitting Materials: Paints and Coatings			1		
1						Credit 4.3			Low-Emitting Materials: Flooring Systems			1		
1						Credit 4.4			Low-Emitting Materials: Composite Wood and Agrifibre Products			1		
1						Credit 5			Indoor Chemical and Pollutant Source Control			1		
1						Credit 6			Controllability of System: Thermal Comfort			1		
1						Credit 7			Thermal Comfort: Design			1		
			1			Credit 8.1			Daylight and Views: Daylight			1		
			1			Credit 8.2			Daylight and Views: Views			1		
Yes ? No			240			Innovation in Design			6 Points					
1						Credit 1.1			Innovation in Design - 'Green House Keeping' / 'Heliostat'			1		
			1			Credit 1.2			Innovation in Design - 'Green Education'			1		
			1			Credit 1.3			Innovation in Design - '95% FSC MRc.6'			1		
			1			Credit 1.4			Innovation in Design - '100% U/G Parking'			1		
1						Credit 1.5			Innovation in Design - 'Lighting Fixture Mercury Reduction'			1		
1						Credit 2			LEED® Accredited Professional			1		
Yes ? No			400			Regional Priority			4 Points					
1						Credit 1			Durable Building			1		
1						Credit 2.1			Regional Priority Credit - RPC.1: Durable Building			1		
1						Credit 2.2			Regional Priority Credit - MRC.3: >75% Waste Diversion if 2 points			1		
1						Credit 2.3			Regional Priority Credit - SSC.3: Development Density if 5 points			1		

Context Plan



Site Plan



Parking Level P3 - P5



Parking Level P2

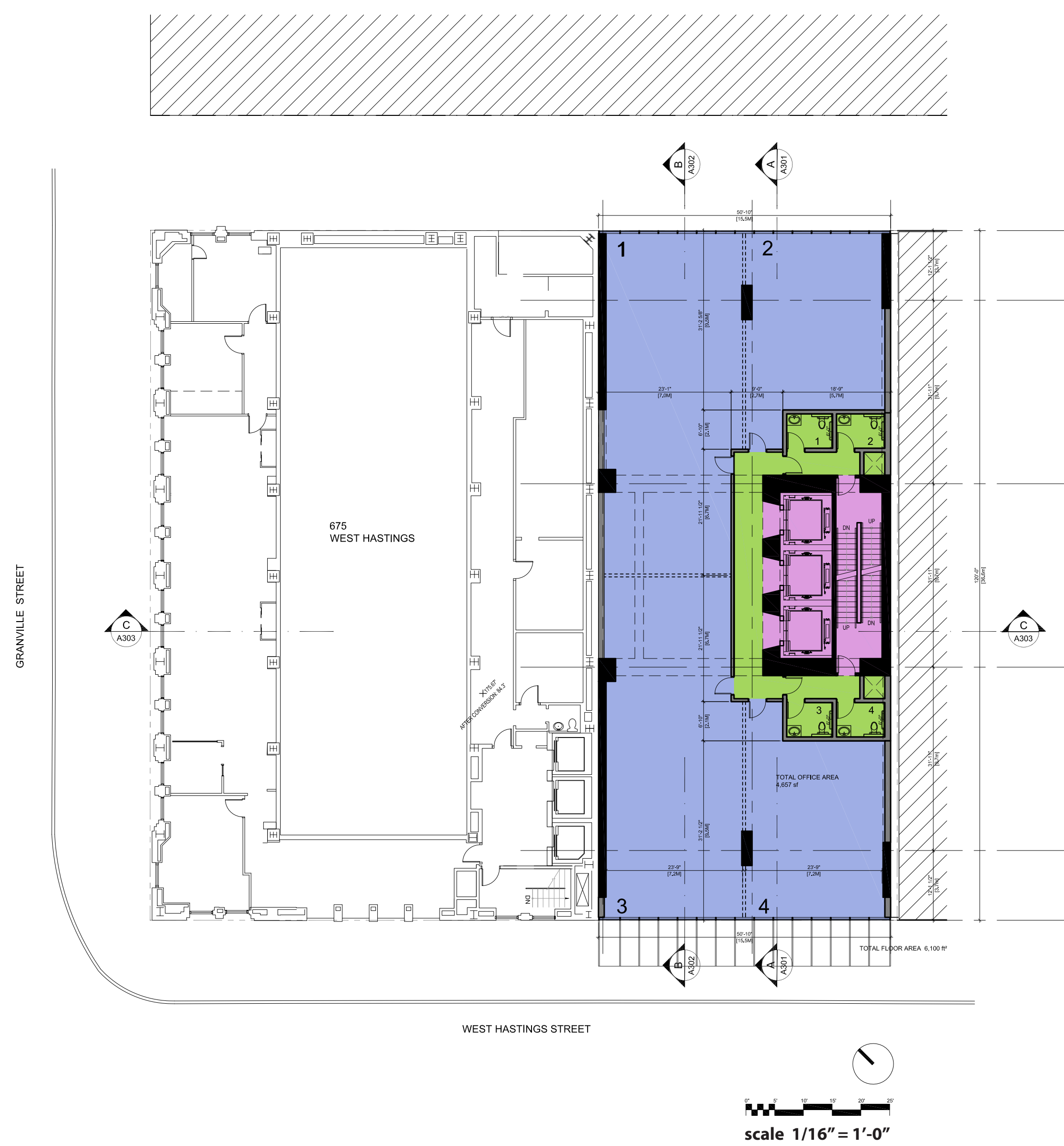


Parking Level P1

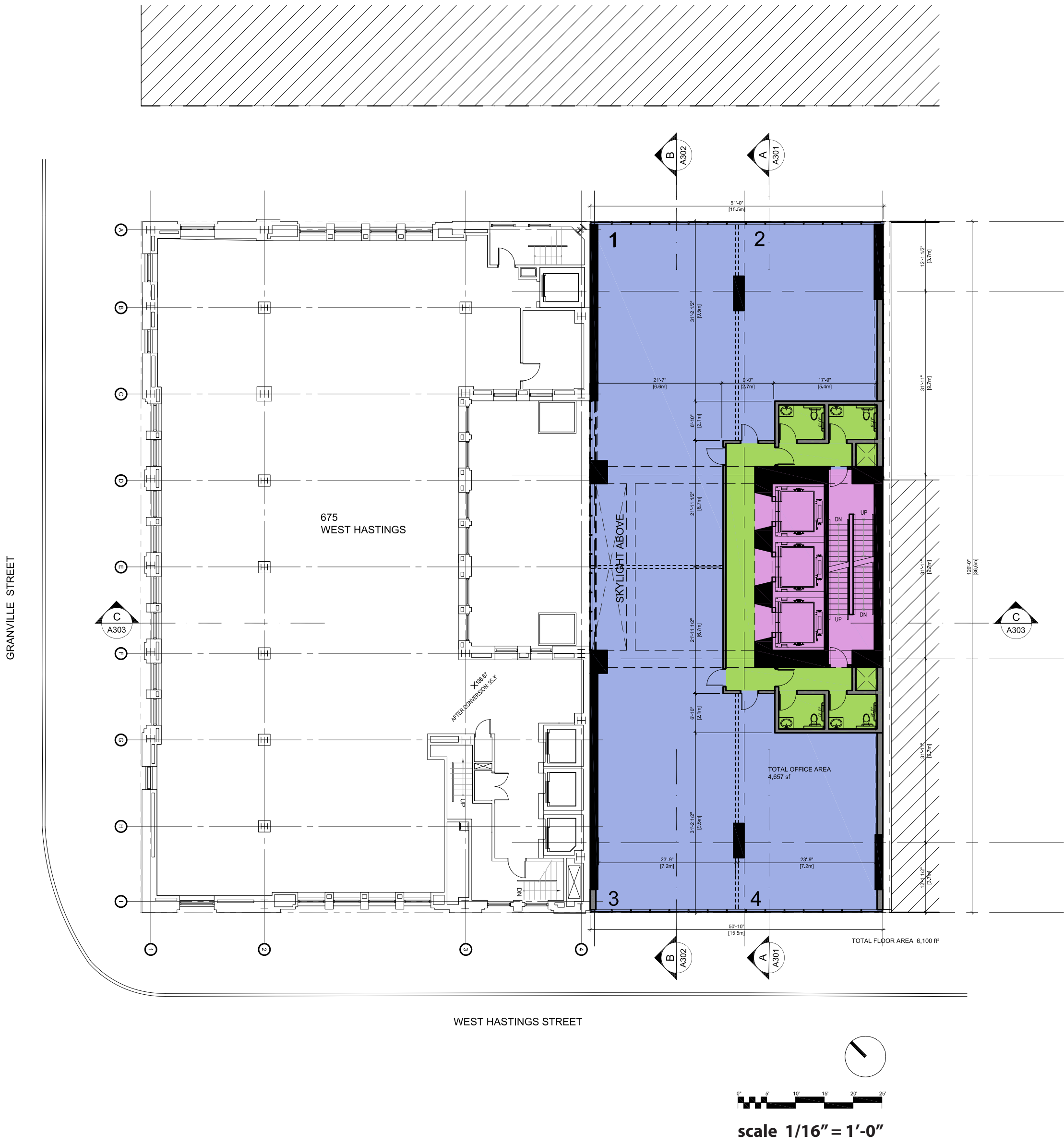


Loading and Services

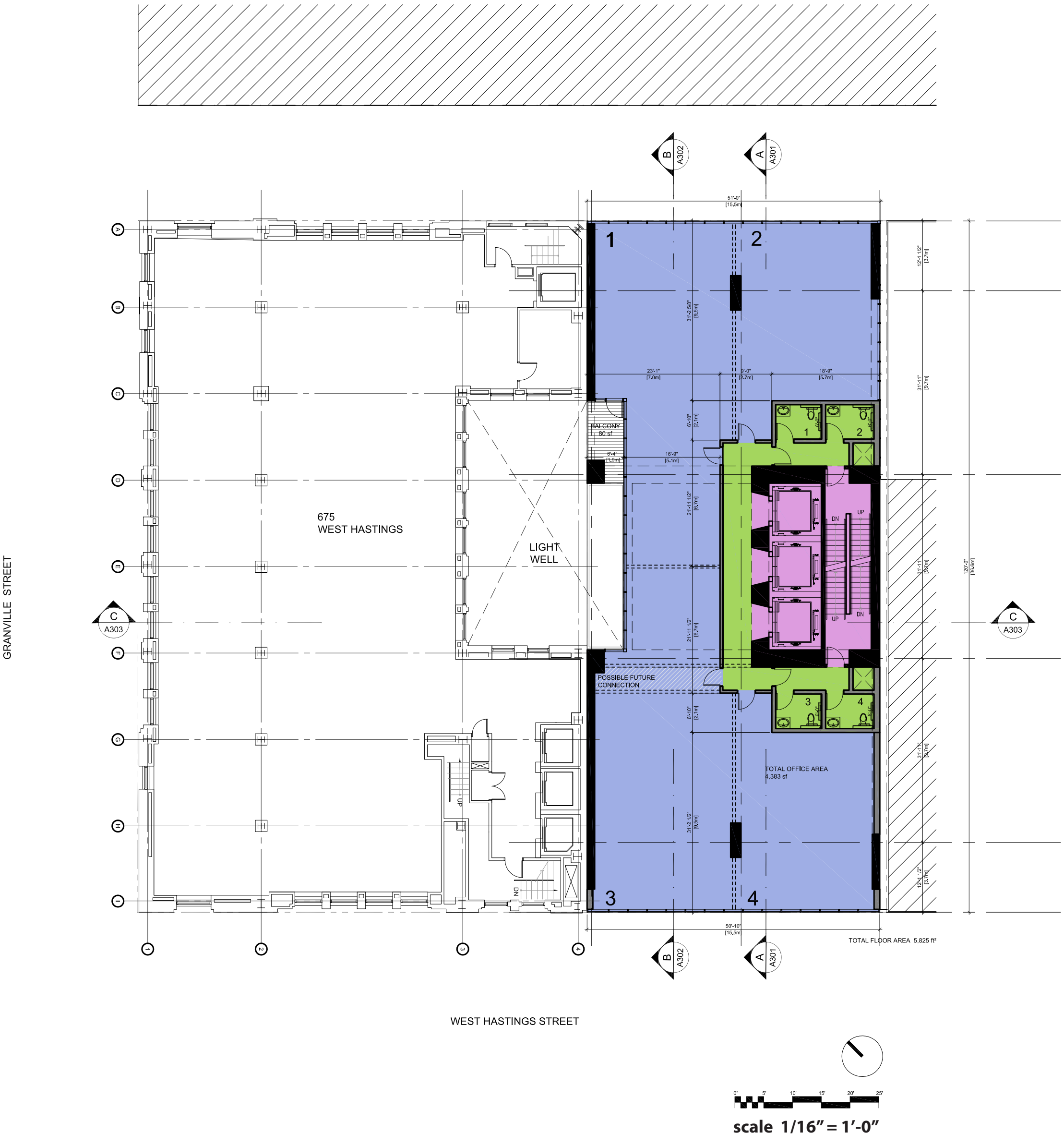




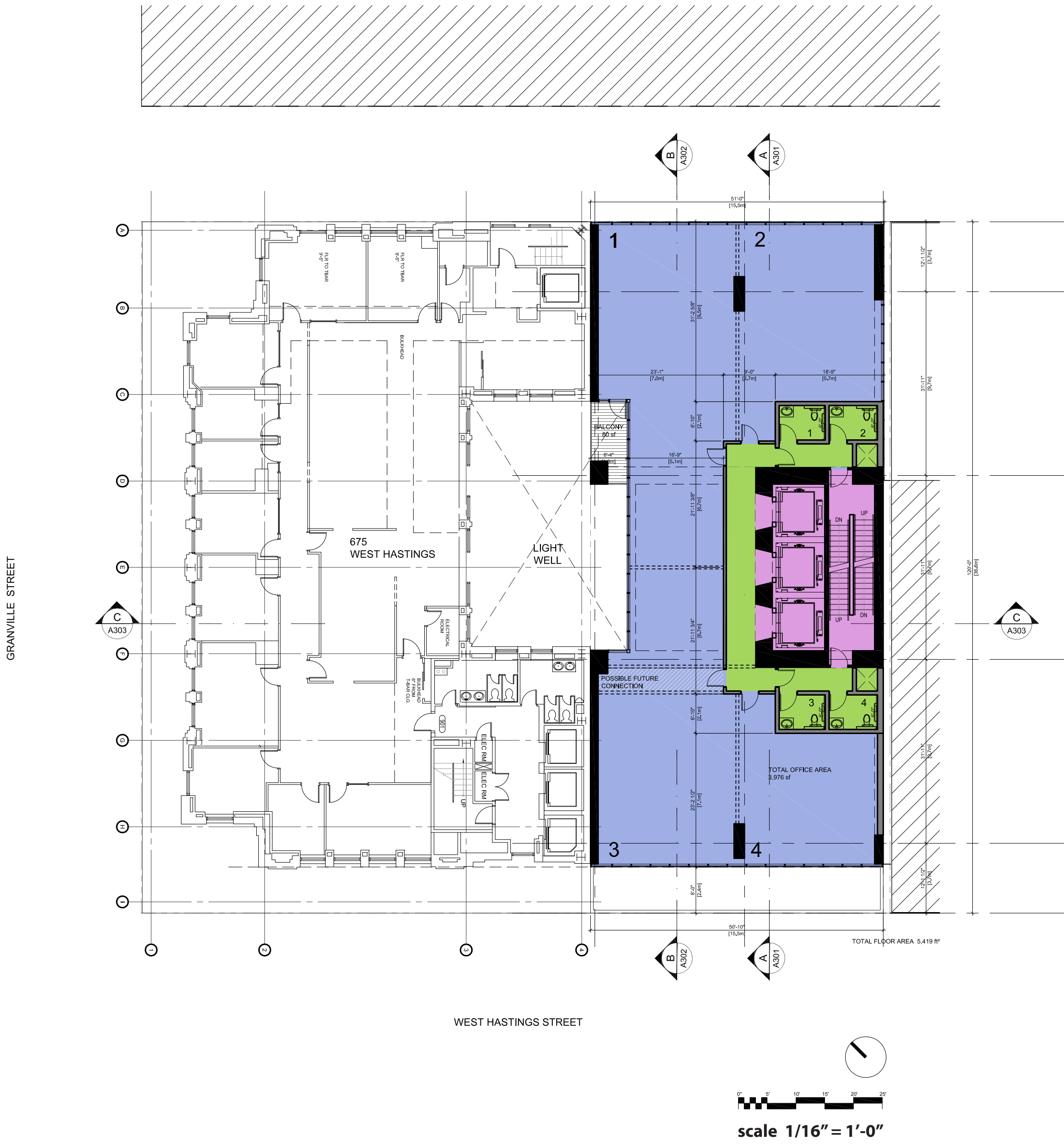
Office Level 3



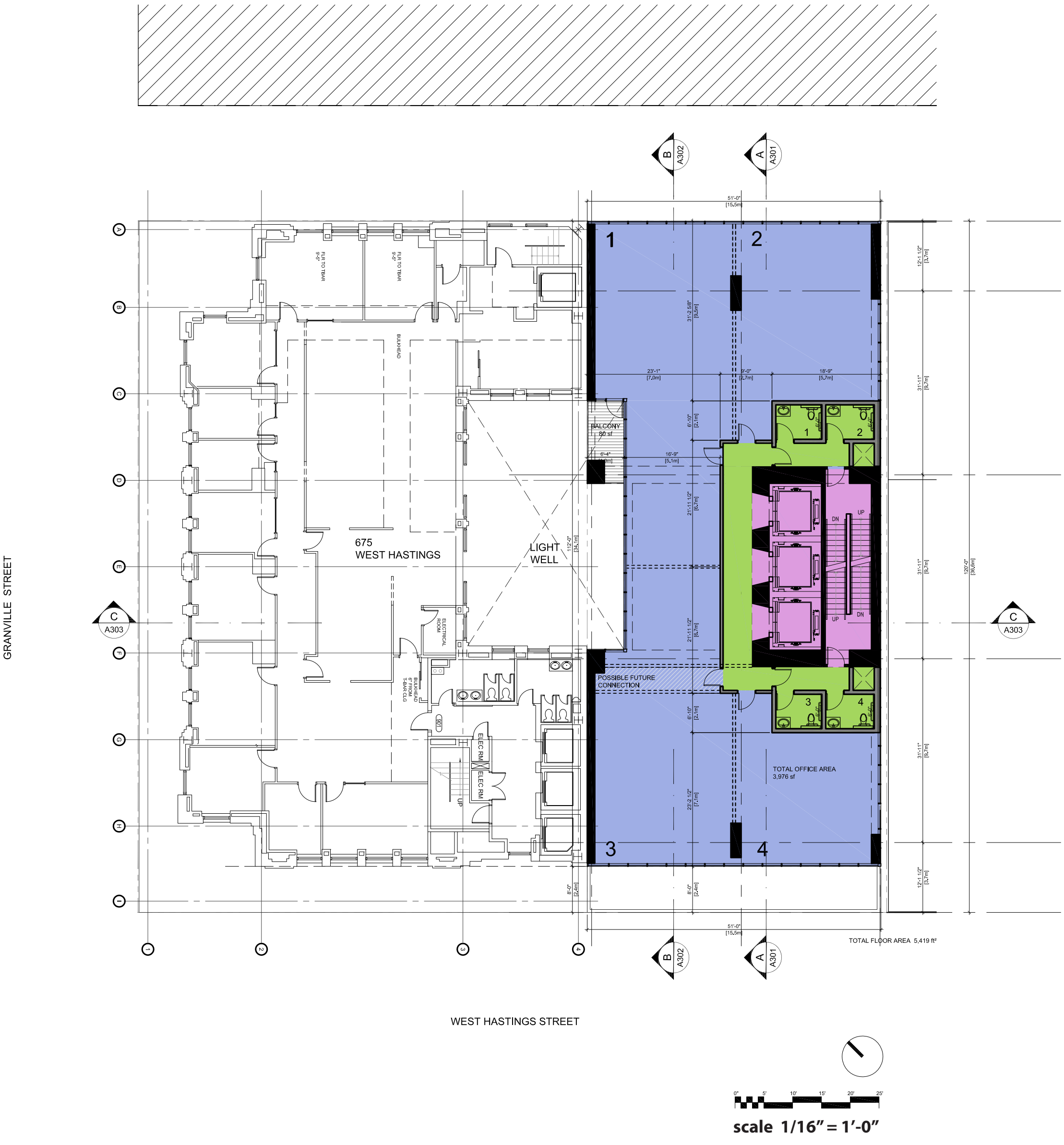
Office Level 4 - 10



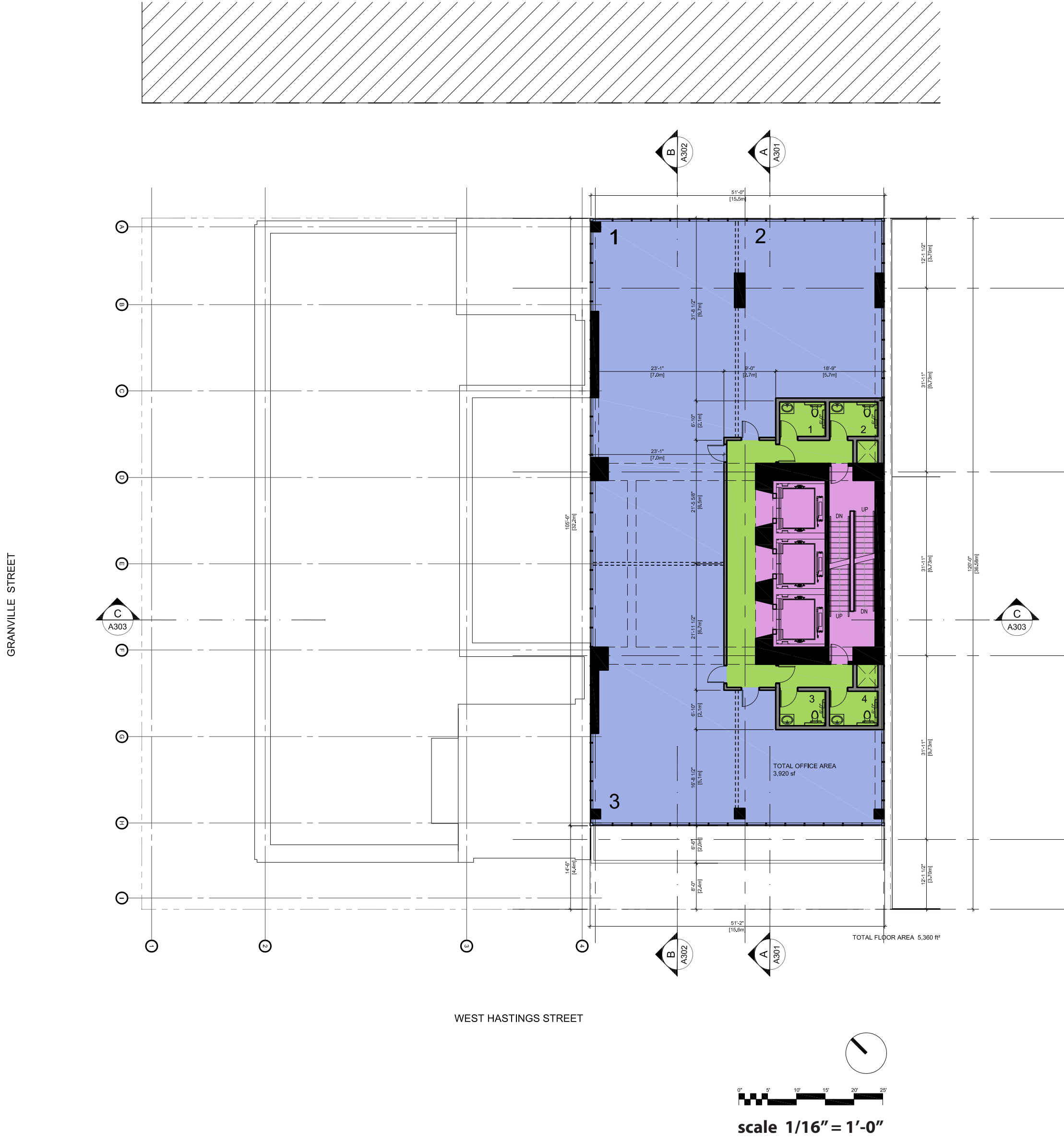
Office Level 11



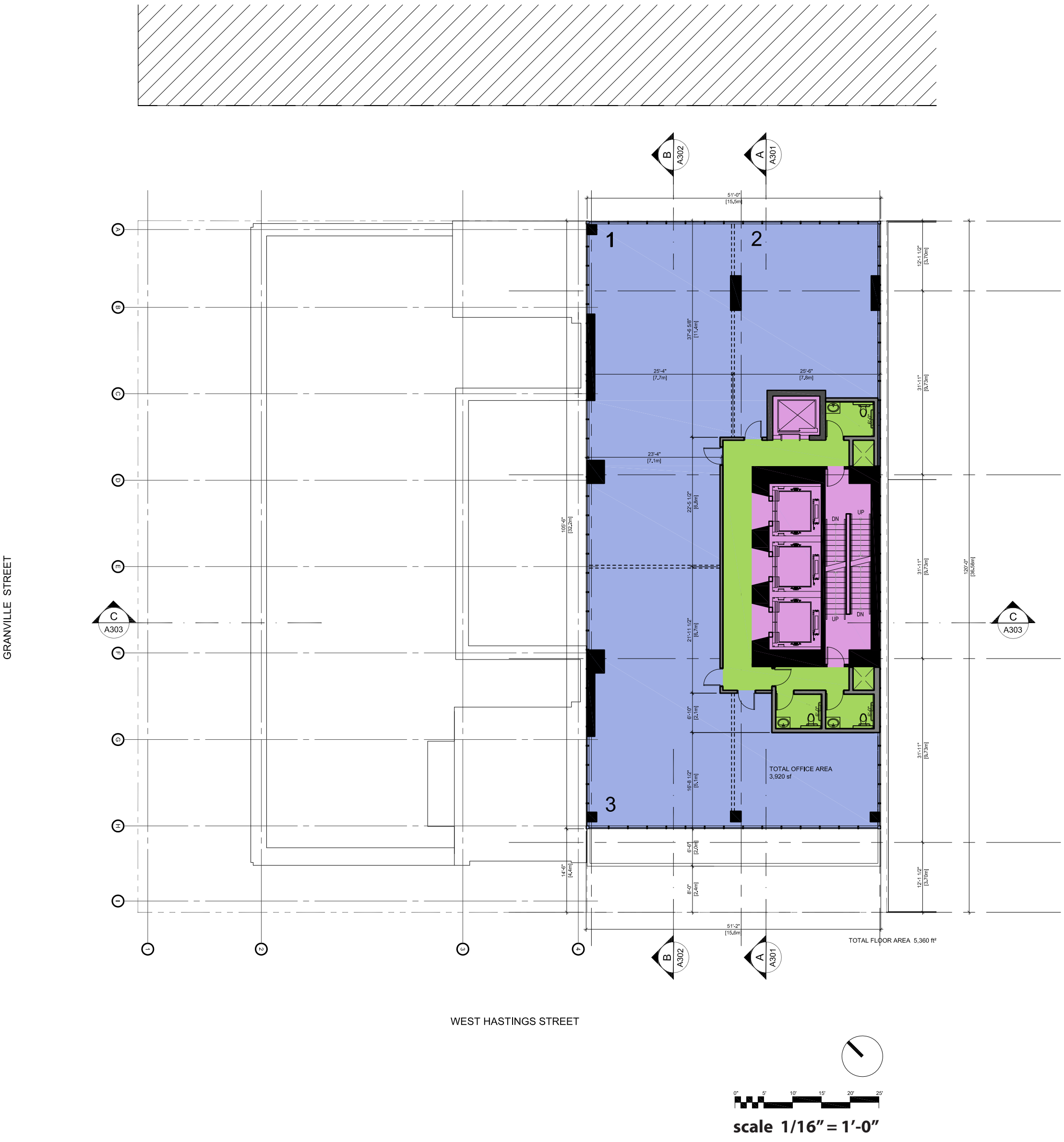
Office Level 12 - 20



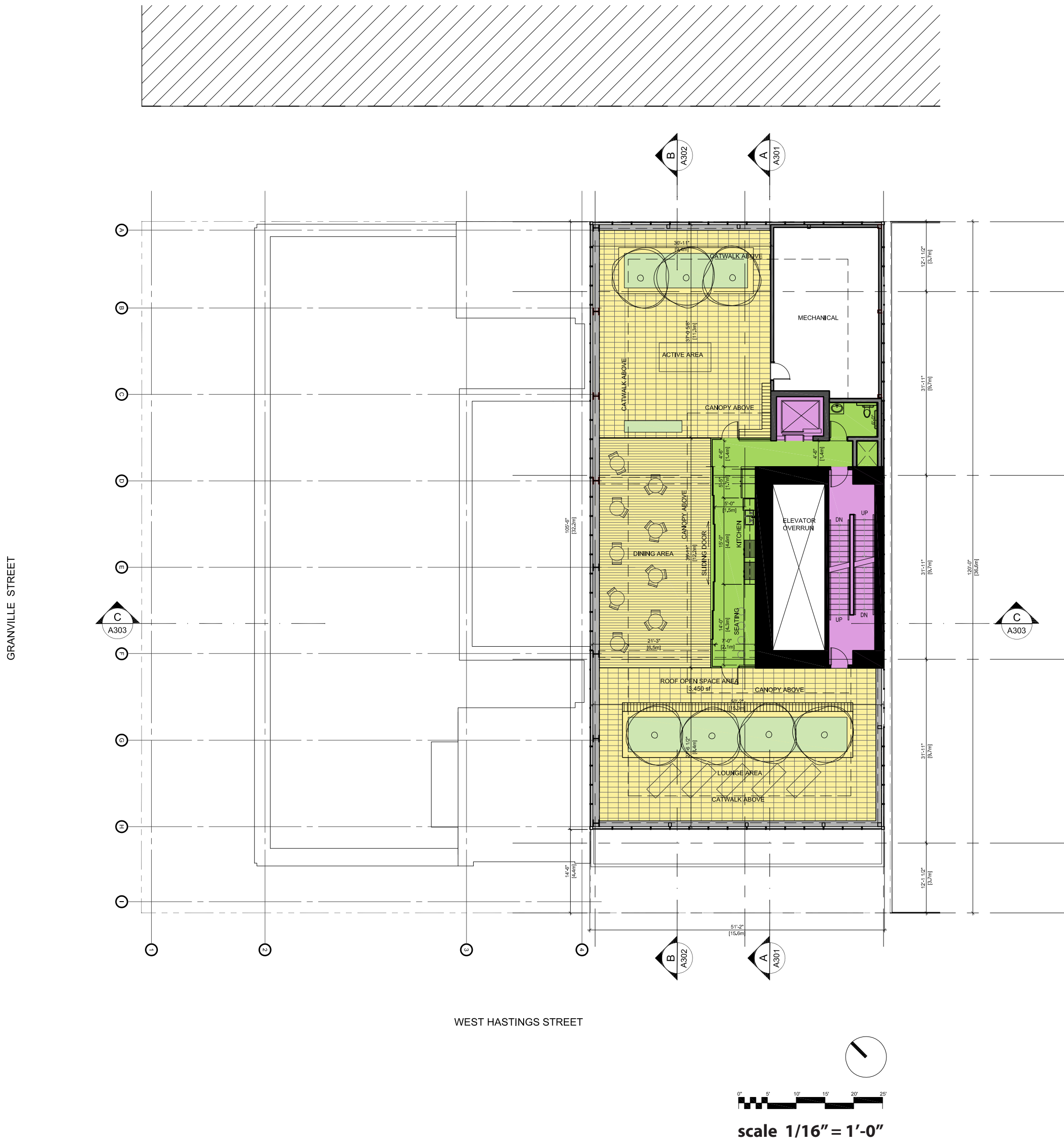
Office Level 21 - 27



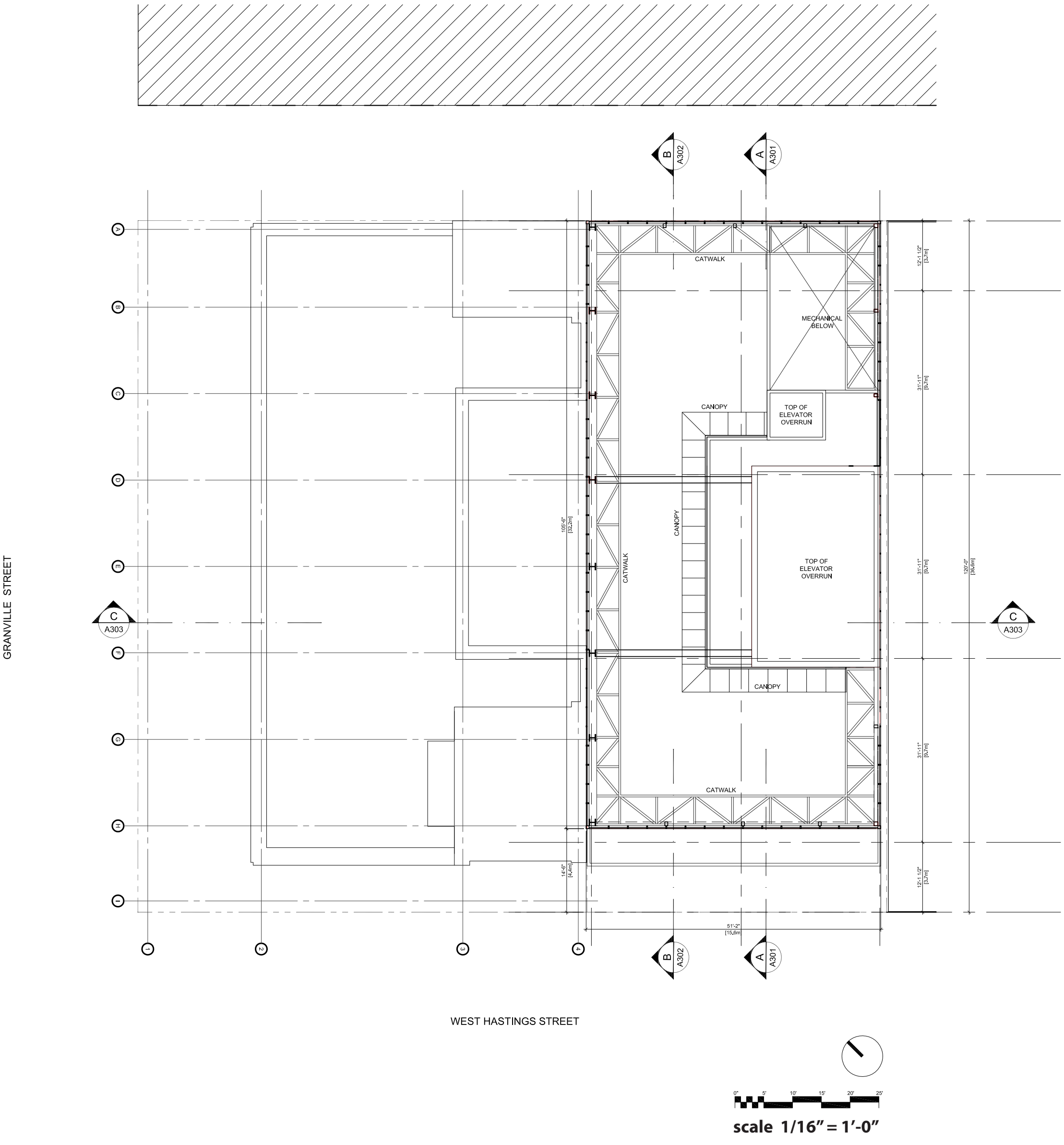
Level 28



Roof Deck



Roof Top

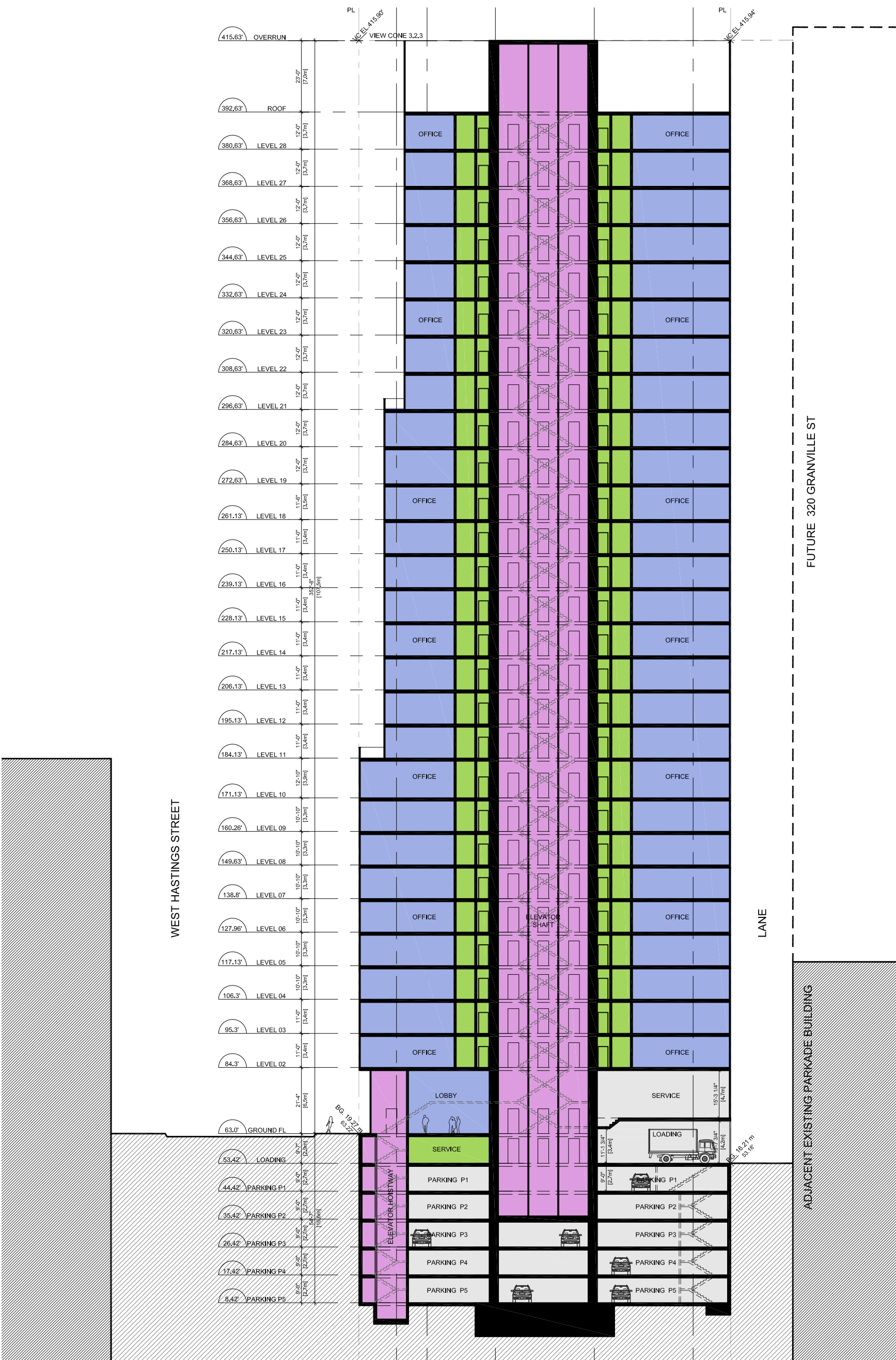


SECTIONS

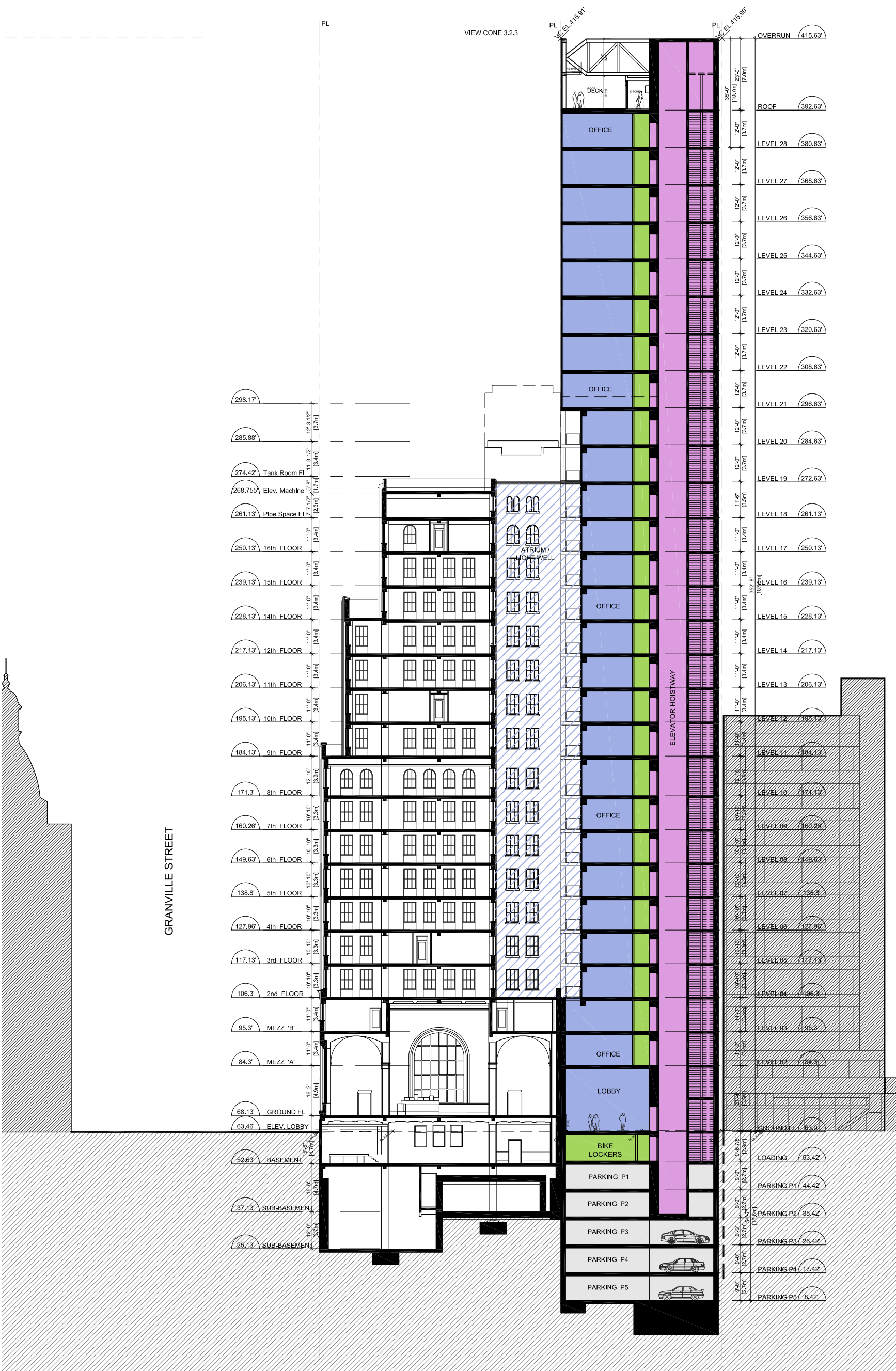


Musson
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Mackey
Partnership

Section A-A

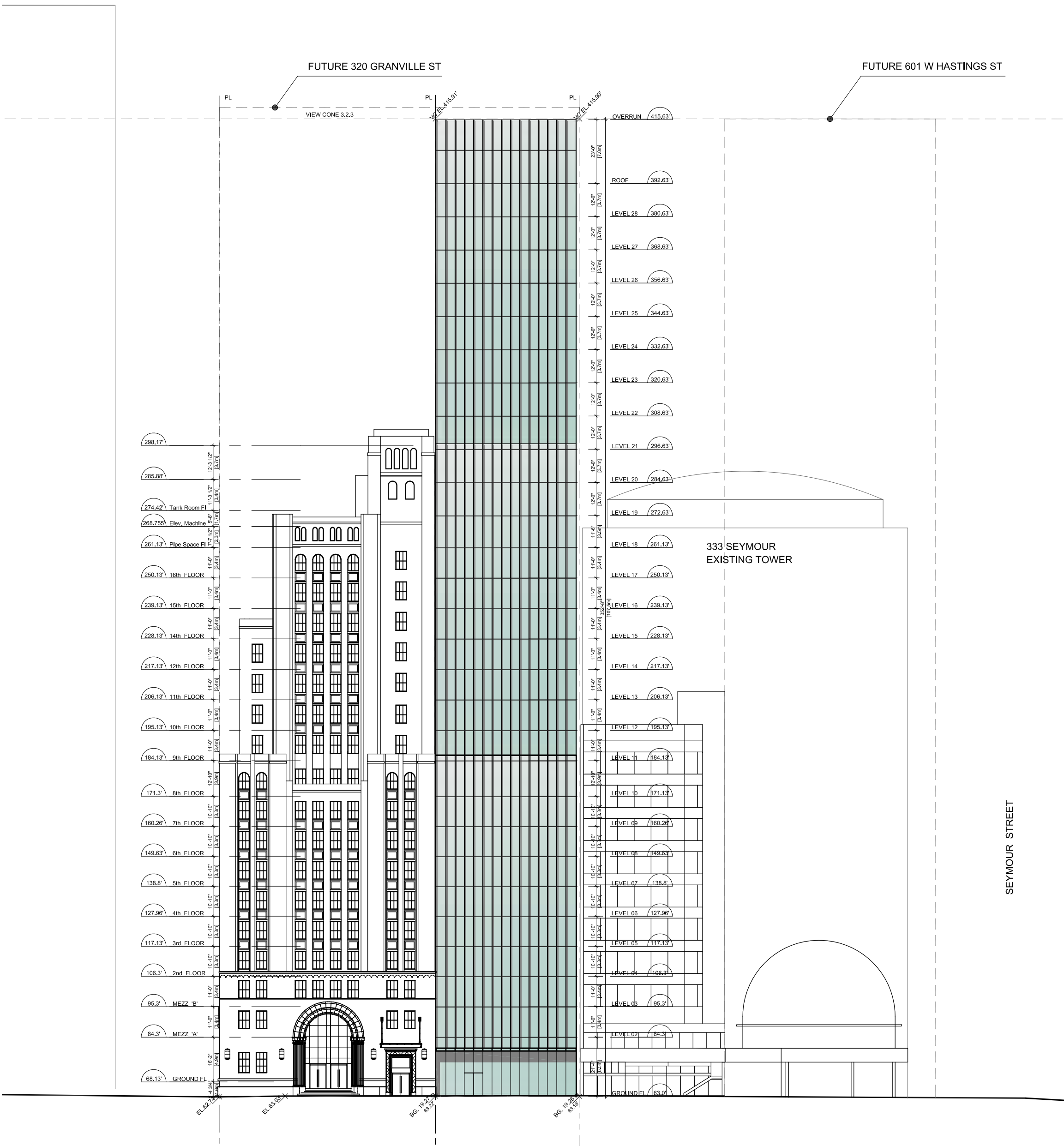


Sectin C-C

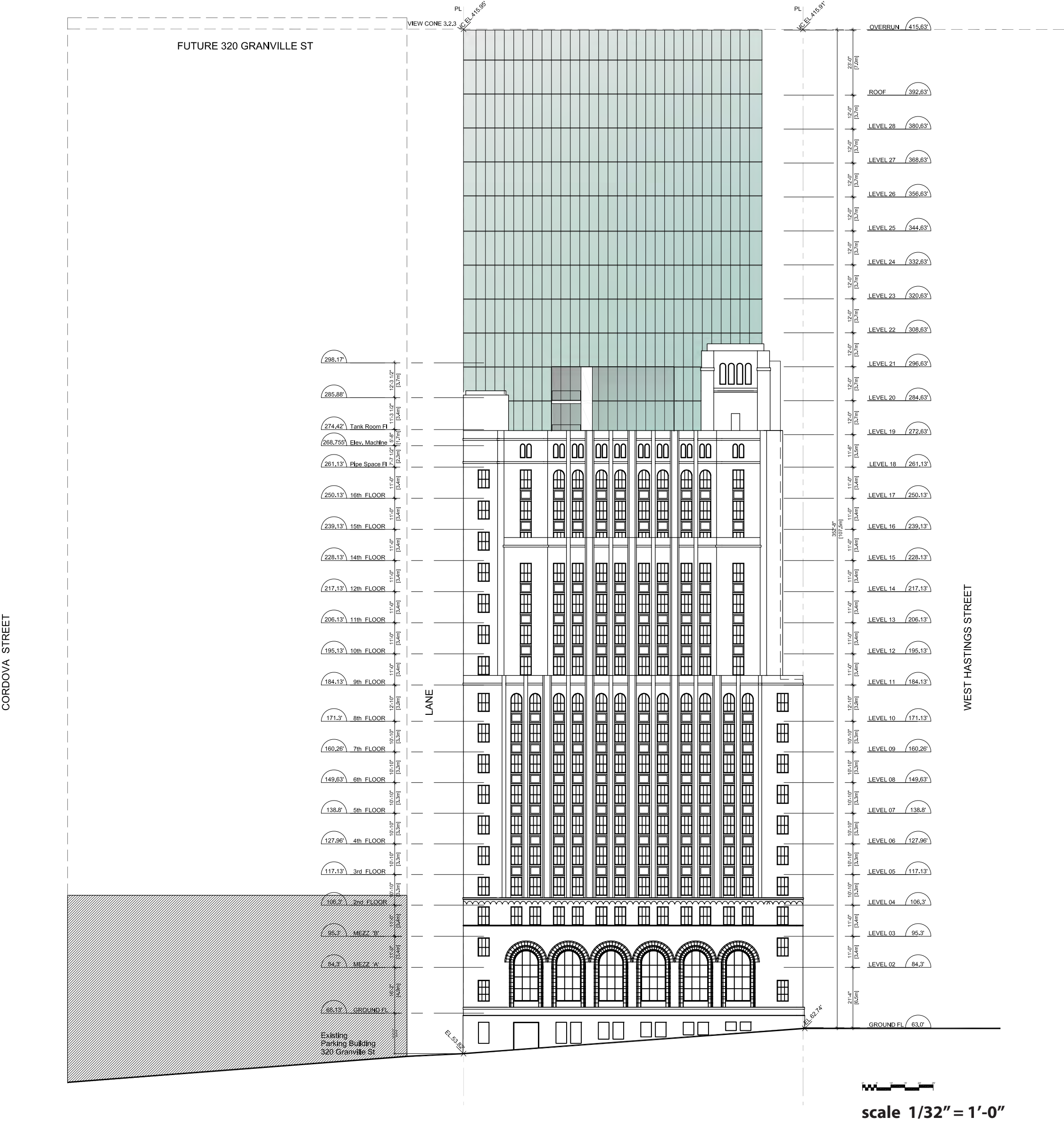


scale 1/32" = 1'-0"

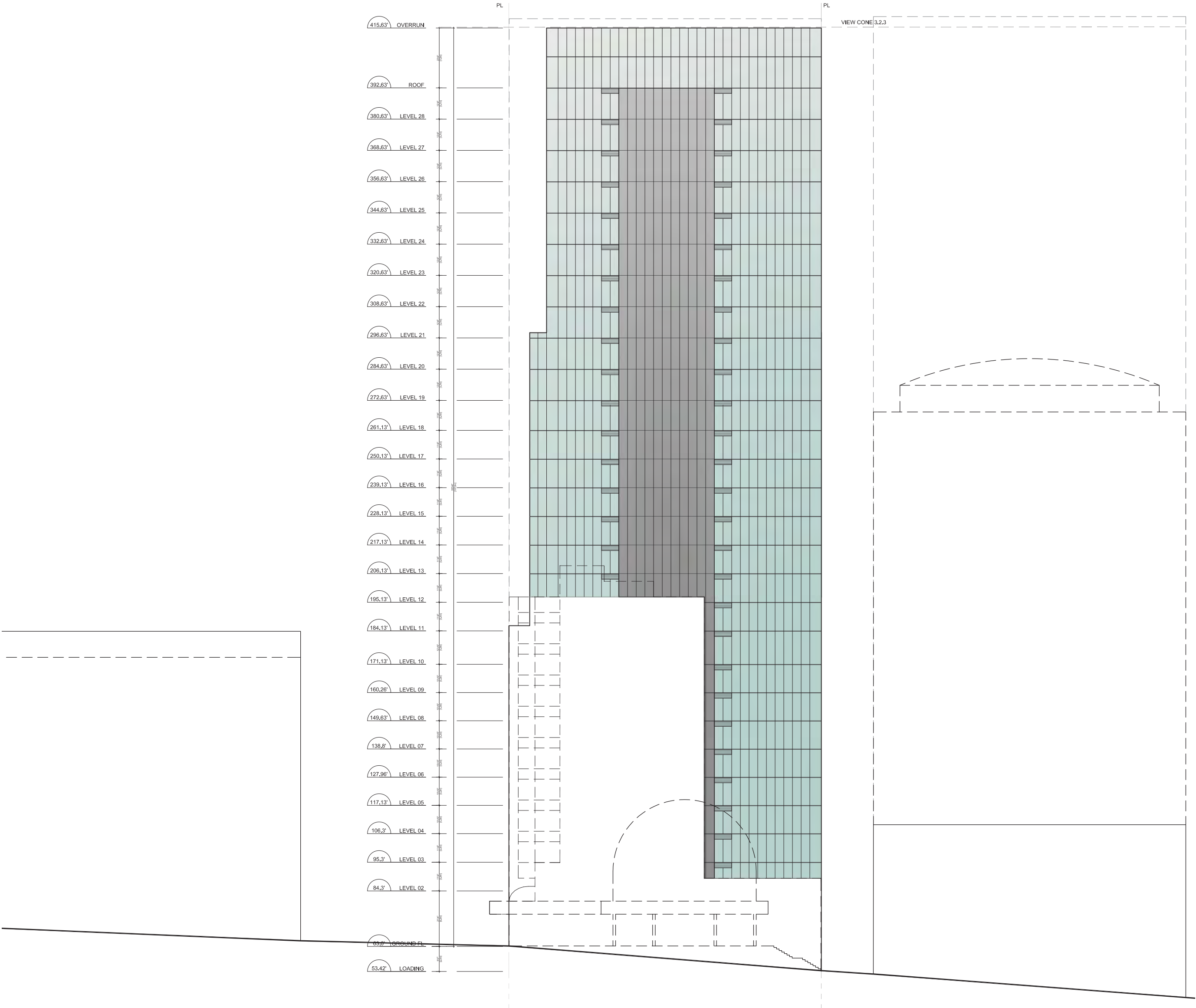
West Hastings Street



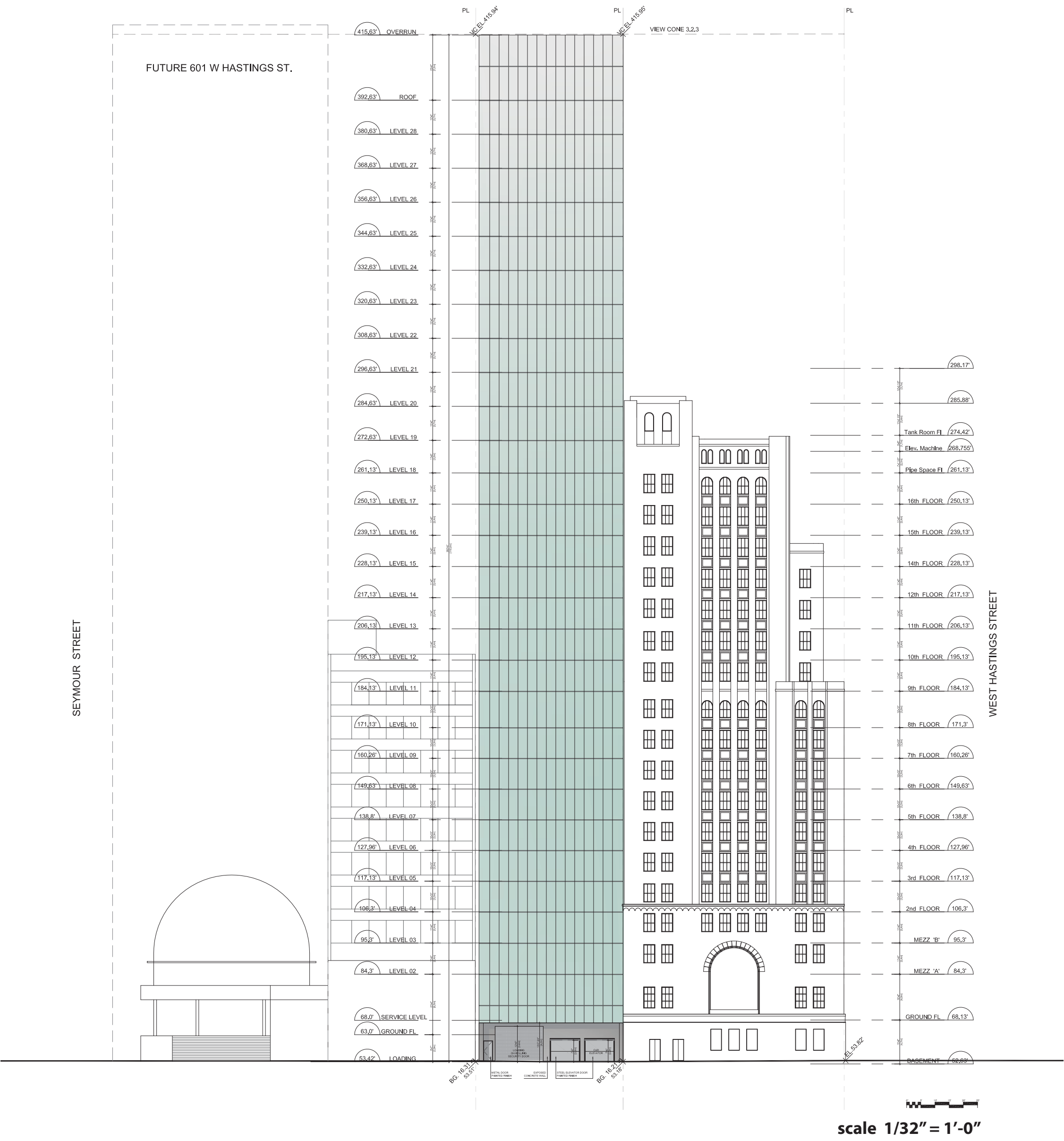
Granville Street



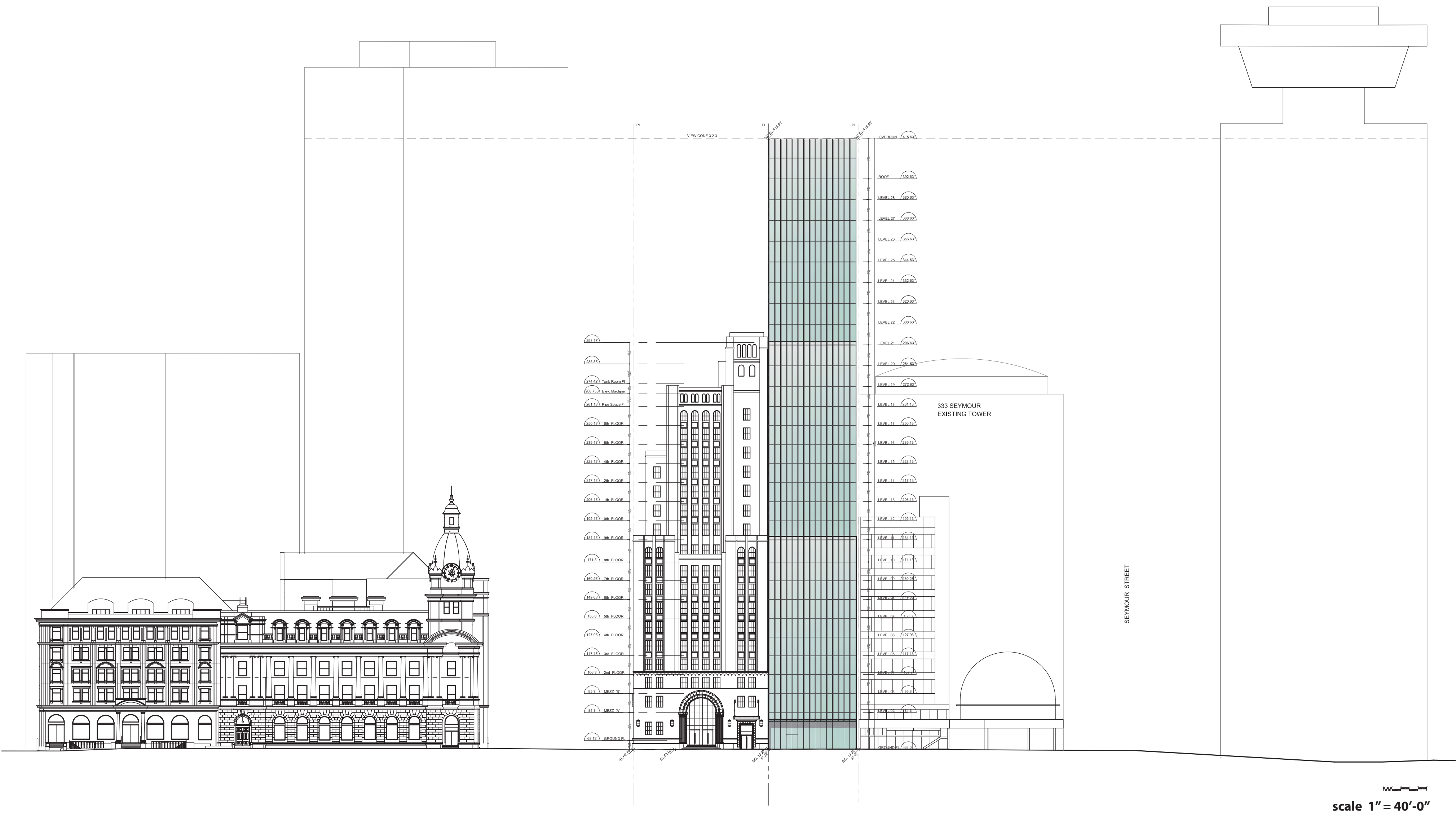
Seymour Street



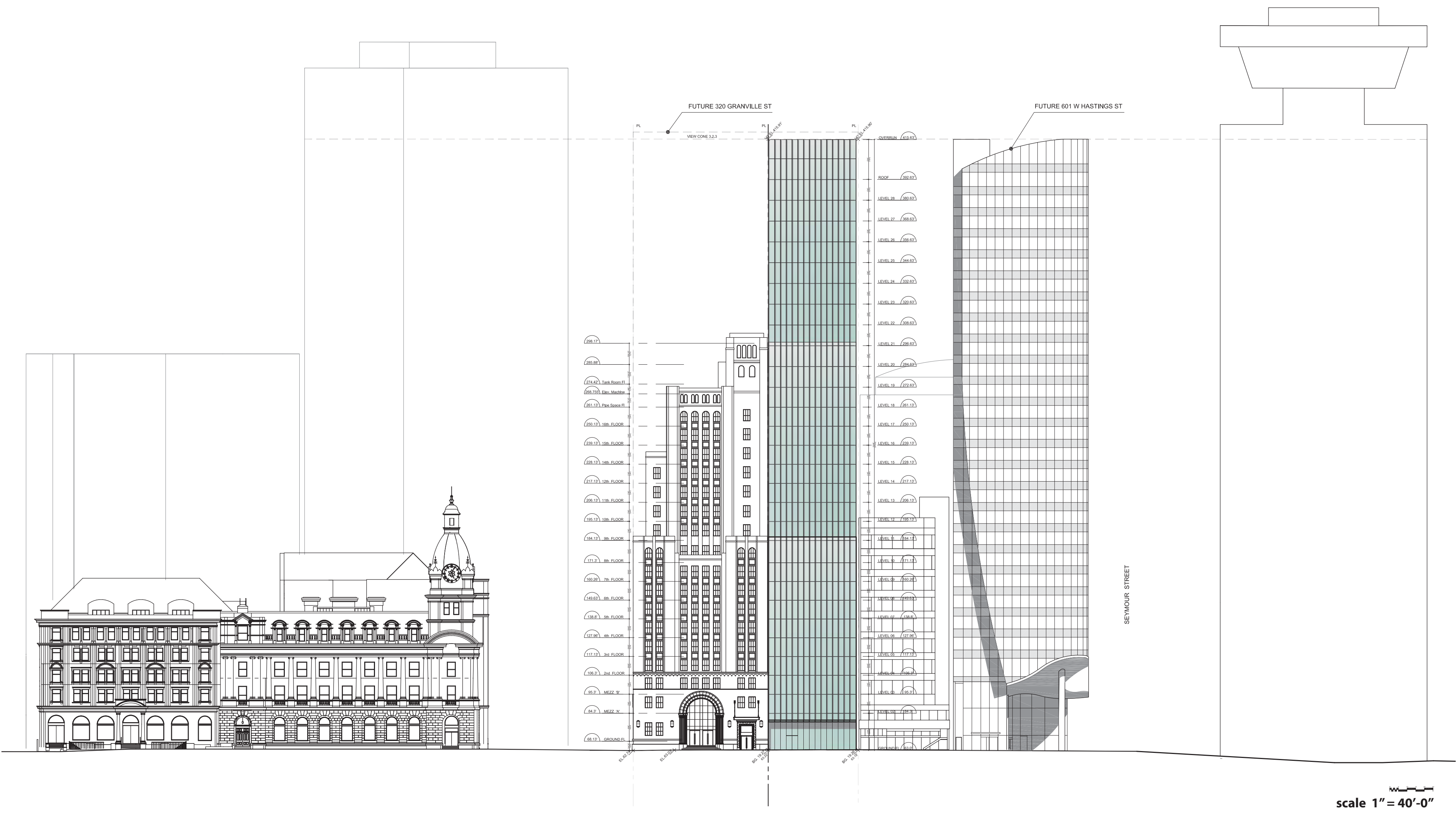
Lane



West Hastings - Current Streetscape



West Hastings - Future Streetscape



LANDSCAPE - ROOF GARDEN

The amenity area is located on the 29th and is split into three distinct zones; a central kitchen and dining area, an activity space to the north, and a sky lounge to the south.

A mechanical room and the elevator core are located along the east side with the remainder of the space oriented towards the west overlooking the adjacent RBC heritage building and providing views to the west, north, and south, as well as views east from the sky lounge.

Kitchen and dining area

Elevator and stair access open into an enclosed indoor kitchen and bathroom area. A wall of sliding glass doors opens to the west and onto an outdoor dining area with wood decking, movable tables and chairs, and compelling views to the west.

Active area

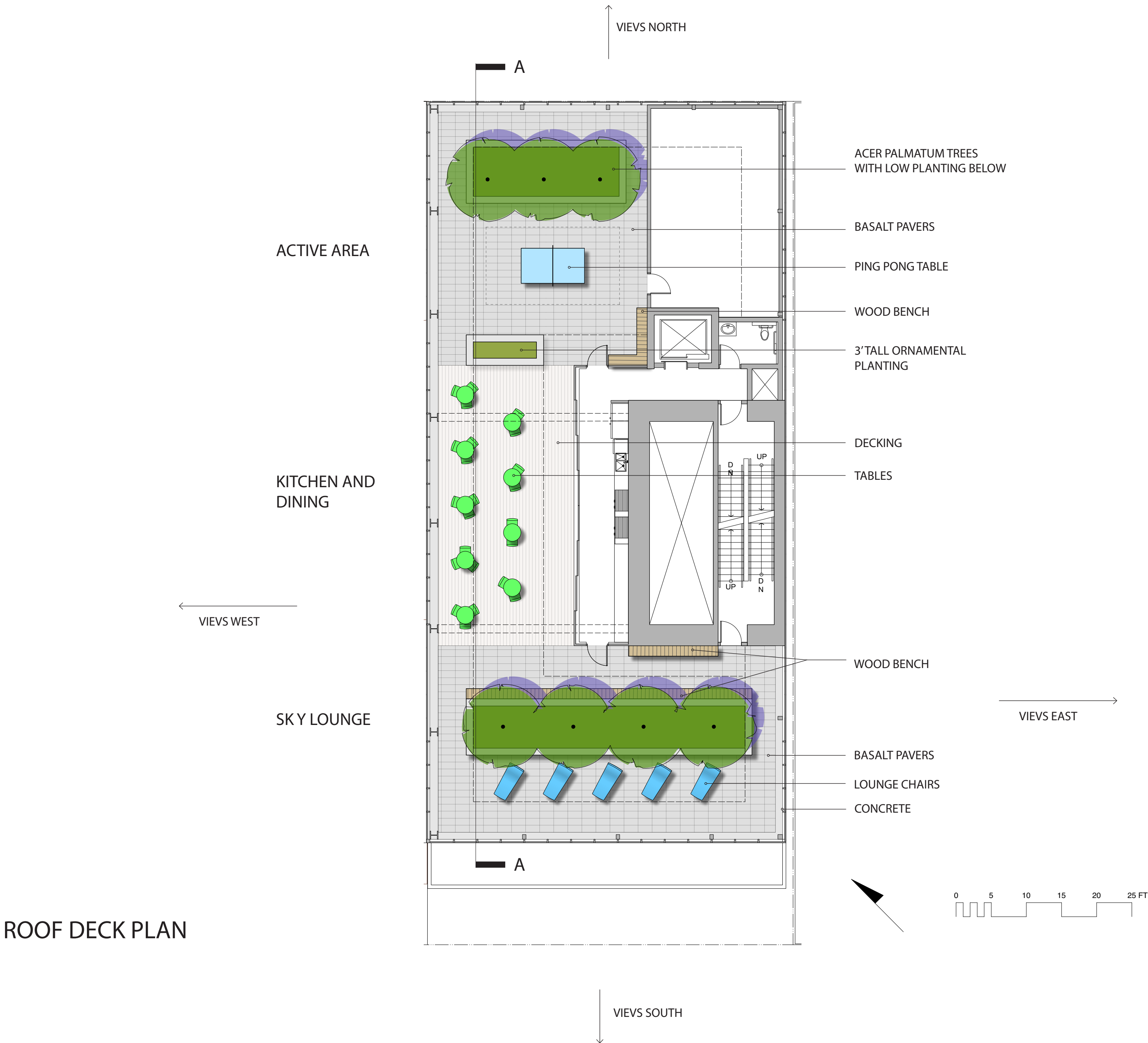
North of the dining area a raised planter with medium height ornamentals and

fragrant plantings screen the dining area from an adjacent activity zone.

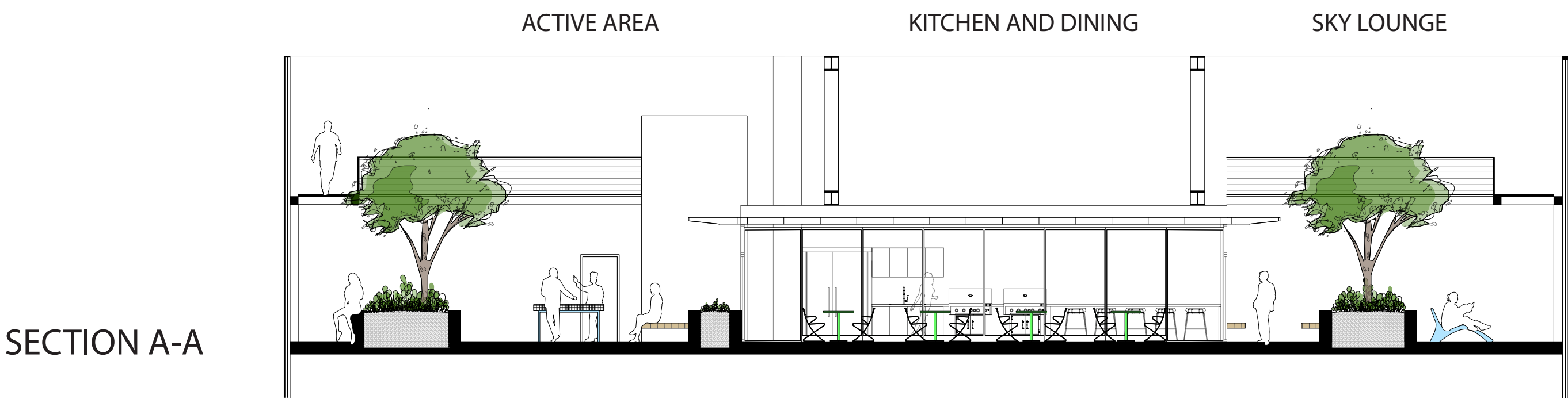
A permanent outdoor Ping Pong table is positioned centrally in the space on a basalt paver ground plane. A wood bench is located under cover to provide an all season perch for resting or spectating. A large raised concrete planter provides a seating ledge and accommodates three multi-stemmed specimen Acer palmatum trees as well as low ornamental plantings. Walking around the planter opens up unobstructed views to the North and a private respite.

Sky Lounge

To the south of the dining area, a sky lounge contains a raised planter with a row of four multi-stemmed Acer palmatum trees that lightly screen and divide the space in two. Light filtered through the foliage creates soft shadows and a calming environment. Long linear wood benches line the north part of this space providing flexible seating. To the south, the planting area opens up into a south facing area complete with lounge chairs and views to the south, east and west.



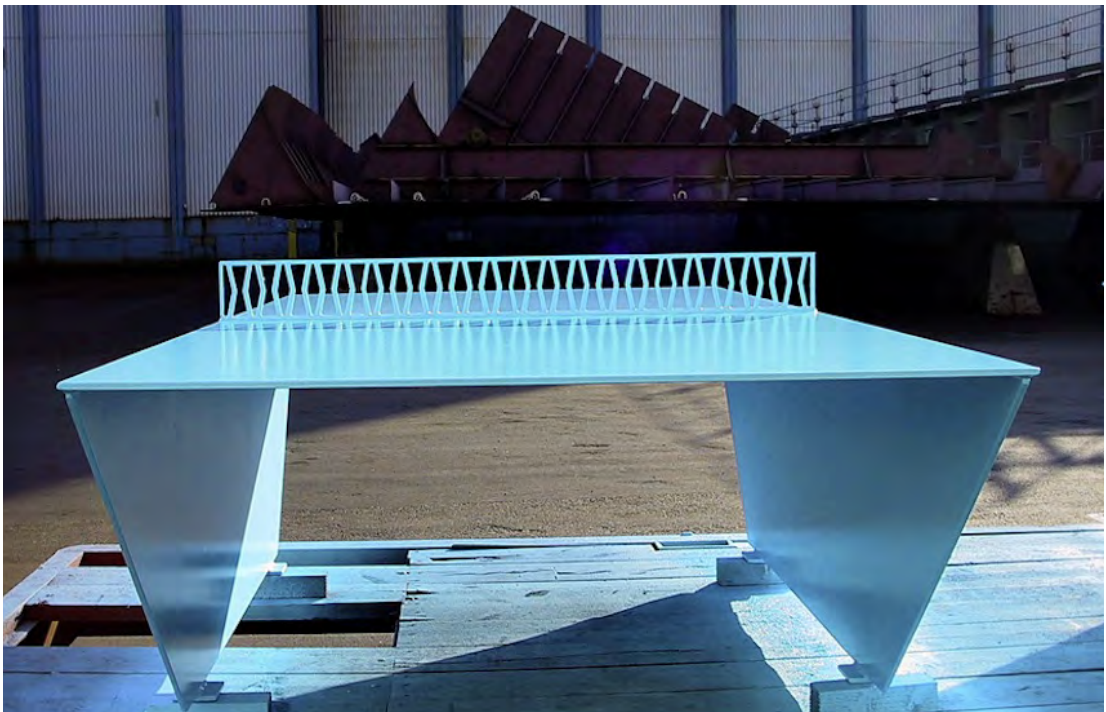
ROOF DECK PLAN



SECTION A-A



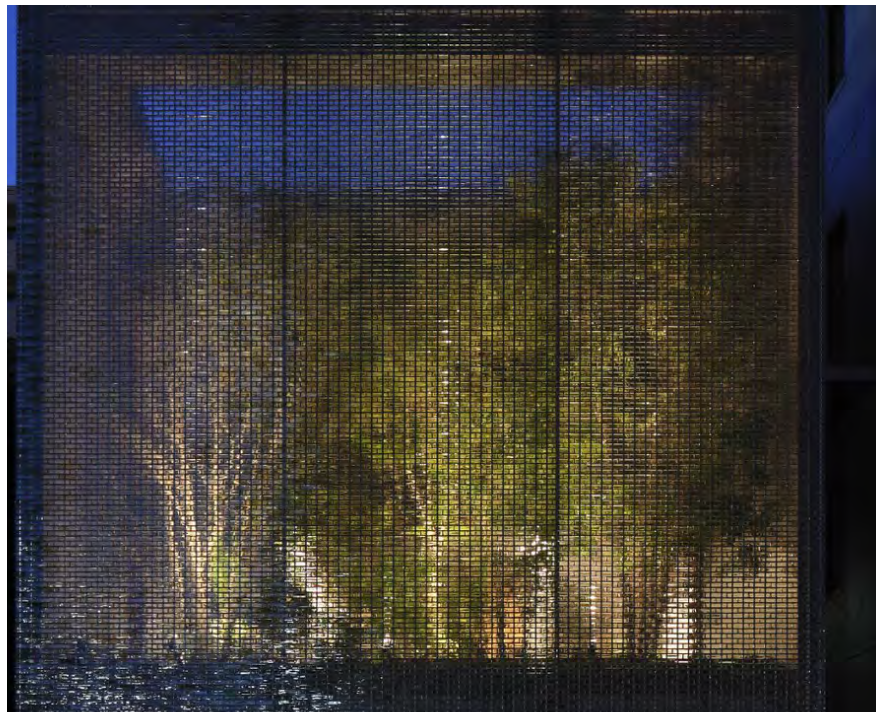
SEATING ELEMENTS



OUTDOOR TABLE TENNIS



SKY LOUNGE CHAIRS



TREES LIST AT NIGHT TO CREATE A LANTERN EFFECT

SITE INFORMATION

CIVIC ADDRESS			
625 WEST HASTINGS VANCOUVER, BC			
LEGAL ADDRESS			
LOT 16, 17 BLOCK 14, PLAN 210			
LOT DIMENSIONS			
120 ft	x 52 ft	=	6,242 ft²
36.58 m	x 15.85 m	=	580 m²
ZONING			
CURRENT:	DD		
PROPOSED	CD-1		

PROJECT INFORMATION

BUILDING HIGHT	
352'-8" (107.5 m)	
NUMBER OF STOREYS	
28	
PROPOSED FSR	
25.5	
PROPOSED DEVELOPMENT AREA	
158,837 sq.ft (14,756 m²)	
OFFICE FLOORPLATE SIZE	
FROM: 5,360 sq.ft (498 m²)	
TO: 6,100 sq.ft (567 m²)	

BUILDING SETBACKS	
FRONT	3'-6" (1.1 m)
BACK	N/A
REQUIRED PARKING	
REQUIRED	96
PROVIDED	67
REQUIRED BICYCLE SPACES	
REQUIRED CLASS A	6
PROVIDED CLASS A	6
REQUIRED CLASS B	28
PROVIDED CLASS B	73

AREA CALCULATIONS (Proposed)

Level	Total Construction Area			Non FSR Areas		FSR Area	
	ft²	m²		ft²	m²	ft²	m²
P1-P5	6,240 (x5)	31,200	2,899	31,200	2,899		
Loading	6,100	5,940	552	3,220 *	299	2,720	253
GF	5,295	5,295	492			5,295	492
2-3	6,100 (x2)	12,200	1,133			12,200	1,133
4-10	5,825 (x7)	40,775	3,788			40,775	3,788
11-20	5,419 (x10)	54,190	5,034			54,190	5,034
21-28	5,360 (x8)	42,880	3,984			42,880	3,984
Roof	777	777	72			777	72
TOTAL	193,257	17,954		34,420	3,198	158,837	14,756

* Loading and Bike Room area eclusion
TOTAL OFFICE AREA EXCLUDING GROUND FLOOR AND LOADING = 150,045 ft² (13,940 m²)

FSR (Proposed) 25.5

TOTAL PARKING REQUIRED ⁽¹⁾

	total spaces
min. required	1 space/145m² (1561 ft²) 96
max. permitted	1 space/115m² (1238 ft²) 121
TOTAL PARKING PROVIDED	67

MINIMUM REQUIRED ACCESSIBLE PARKING ⁽²⁾

	total spaces
min. required	1 space for first 500m² (5382ft²) 0.4 space/each remining 1000m² 6
TOTAL ACCESSIBLE PARKING PROVIDED	8

MINIMUM REQUIRED BICYCLE SPACES ⁽³⁾

	minimum	total spaces
CLASS A	1 spaces/500m² (5382ft²)	28
CLASS B	6 spaces for any development containing min. of 2000m²	6
TO TAL CLASS A SPACES PROVIDED		73
TOTAL CLASS B SPACES PROVIDED		6

LOADING SPACES REQUIRED ⁽⁴⁾

	minimum	total spaces
CLASS A	2 spces/ 7500 - 15000m²	2
CLASS B	3 spces/ 10000 - 28000m²	3
TOTAL CLASS A SPACES PROVIDED		2
TOTAL CLASS B SPACES PROVIDED		1

CALCULATION OF BYLAW MINIMUM PARKING REQUIREMENT

Item	No. of spaces	Notes
Provided vehicle parking spaces /including small cars; not including disability parking/	50	54 - 4 = 50 sparking paces
Provided disability parking	8	4 (x2) = 8 parking spaces Each minimum required disability parking can be counted as two vehicle parking spaces ⁽⁵⁾
Provided bicycle parking counted as vehicle parking spaces	9	73 - 28 (min. required) = 45 / 5 = 9 parking spaces Each 5 bicycle parking spaces in excess of the min. requirement, up to 1 per 300 m² of gross floor area maximum can be counted as one parking space ⁽⁶⁾
Grand Total	67	The minimum bylaw parking requirement is 96 parking spaces (short 29 spaces)

⁽¹⁾ City of Vancouver, Parking by Law, Section 4.3.6

⁽²⁾ City of Vancouver, Parking by Law, Section 4.8.4(b)

⁽³⁾ City of Vancouver, Parking by Law, Section 6.2.4.1

⁽⁴⁾ City of Vancouver, Parking by Law, Section 5.2.7

⁽⁵⁾ City of Vancouver, Parking by Law, Section 4.1.15

"each disability parking space provided to satisfy the minimum required number of such spaces will count as two parking spaces for the purpose of satysfying the minumum required number of parking spaces"

⁽⁶⁾ City of Vancouver, Parking by Law, Section 6.2A(a)

"there is to be a reduction of 1 in the number of motor vehicle spaces required on the site, except that the maximum number of bicycle spaces on the site which may count toward calculation of the motor vehicle spaces is not exceed 1 spae for each 300 m² of gross floor area, and is to be the difference between the required number of bicycle spaces and the number of bicycle parking spaces provided on the site"

PROJECT TEAM

Developer

Uptown Property Group

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Architect

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Designers Planners

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